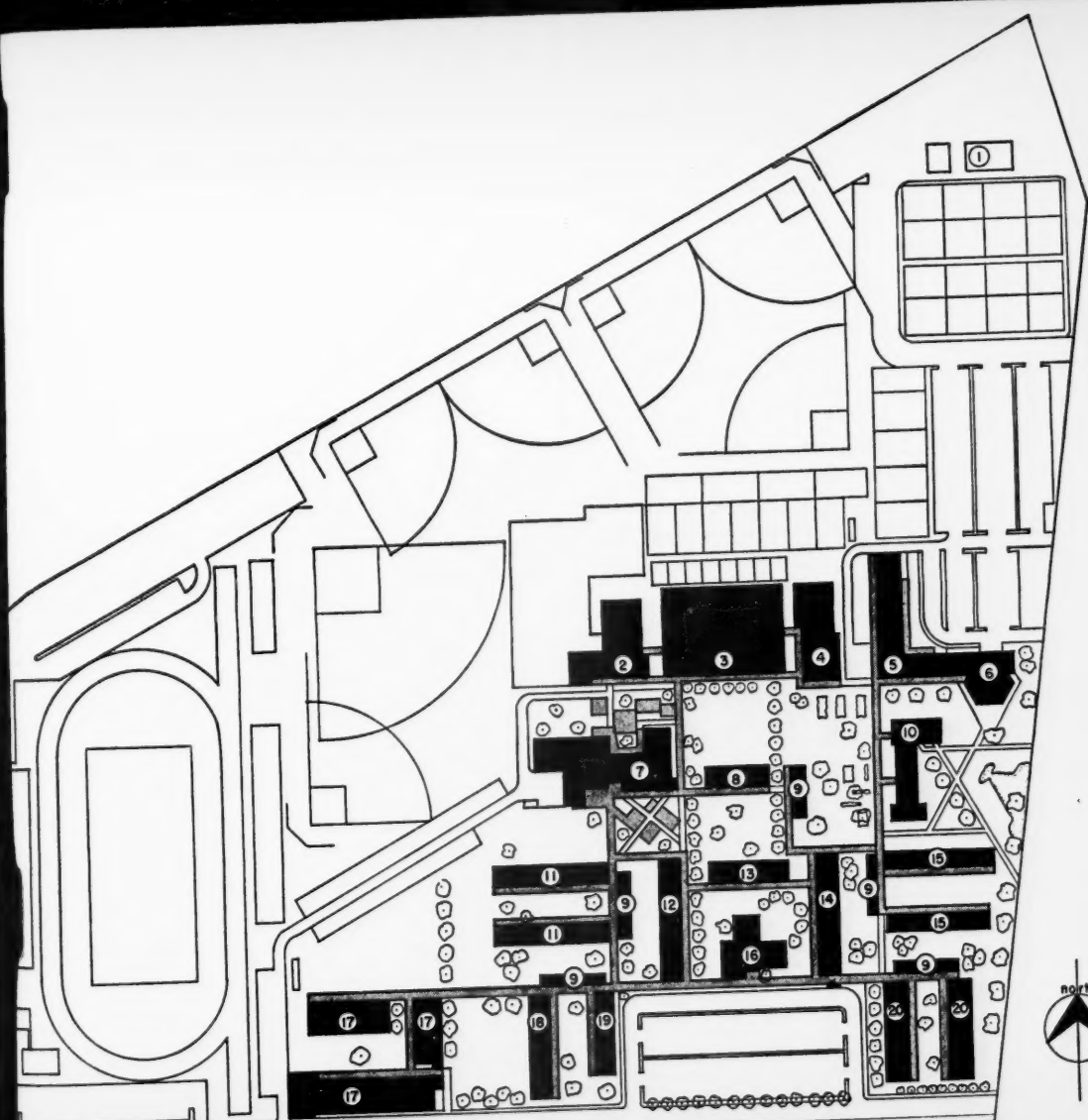


CALIFORNIA SCHOOLS



APRIL 1955

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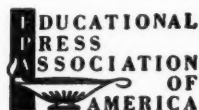
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THE COVER ILLUSTRATION shows the site utilization plan for Arroyo High School, now under construction as the third high school in El Monte Union High School District, Los Angeles County. It has a designed capacity of 2,000 students, grades 9 to 12. Classrooms are arranged informally in a series of courts, with work space, office and conference space provided for teachers in a service unit for each group of rooms. The future auditorium may be located immediately north of Unit 6. The drawing was provided by the architects, Kistner, Wright and Wright of Los Angeles. The planning was under the direct supervision of B. L. Bergstrom, district superintendent of schools, with the governing board members taking an active part in evaluation of the plans as they were developed. Charles D. Gibson represented the School Planning Office of the State Department of Education.

EFFECTIVENESS OF EDUCATION¹

JAY DAVIS CONNER, *Associate Superintendent of Public Instruction;
and Chief, Division of Instruction*

ARE WE SPENDING ENOUGH FOR EDUCATION?

A comparison of the educational program from kindergarten through college today in both public and private schools with that of 50 years ago is indeed impressive. Today much more schooling is being offered to many more pupils. The United States has made vast strides towards the democratic goal of universal education.

However, comparing the relative adequacy of the educational effort today with what it was a half century ago is not so reassuring. Today's demand in terms of trained intelligence, moral discipline, knowledge, and wisdom concerning domestic and world affairs is much greater than the demands of 50 years ago. Educational effort and educational needs are not now anywhere nearly in balance.

Walter Lippmann² has pointed out that in 1900 the educational effort, measured in expenditures per capita, was \$3.40, and that the total federal expenditure per capita was \$6.85. The ratio between these figures is 1 to 2. In 1953, the educational effort nationally was at the rate of about \$76 per capita. Federal expenditures for all purposes in the same year had risen to \$467 per capita. The ratio between these figures is 1 to 6. The State of California 1954-55 Budget provides for a total expenditure of \$1,431,932,444. A total of \$540,000,000 was provided for education, which is a ratio of 1 to 3.

The National Association of Manufacturers News³ stated that "we are spending proportionately less of our income on schools today than we did in 1930—even then the schools were supported inadequately."

In 1937-38, California spent 3.69 per cent of its income for public schools—from kindergarten through the twelfth grade. In 1949-50, California spent only 2.28 per cent of its income for schools, and 24 other states made greater effort in relation to their income.⁴

The difference between the educational effort and federal expenditure for other purposes is even greater than Lippmann's figures suggest. The momentous changes in the structure of American society during the last 50 years have added greatly to the burden upon the schools.

¹ A Report to the Senate Finance Committee, Subcommittee on Education (Sen. Arthur H. Breed, Jr., chairman), California State Legislature, 1955 Regular Session, January, 1955.

² Walter Lippmann, "Educational Efforts and Educational Needs," *School Life*, XXXVI (April, 1954) 97-98.

³ *Our Public Schools and Their Financial Support*. New York 17: National Association of Manufacturers (2 East 48th St.), 1954. Pp. 24.

⁴ *Education: An Investment in People*. Washington 6: Education Department, Chamber of Commerce of the United States, 1954, Chart, page 33, column 3.

Responsibility of the schools for educating the new generation has become much more comprehensive than it has ever been. Schools are now expected to perform many of the educational functions which used to be performed by the family, the community, and the church.

THE PUBLIC SCHOOL PROGRAM TODAY

What is Expected of Public Schools Today?

This question is of deep concern to every citizen. Opinions differ widely as to how much the public schools should attempt to do. An important clue may be found in the following statement prepared by the Educational Advisory Council of the National Association of Manufacturers.

The schools today are expected to assume a wider range of responsibilities, as to preparation of children for adult life, than were expected of schools a generation ago. Hence the educational system should have considerable latitude in familiarizing students with new scientific, technical, and cultural developments; in providing new experiences and outlooks, ideas and knowledge and contemporary concepts which parents—as an older generation—may not be in a position to impart.¹

The Council, however, recognized that the school is not, and cannot be, the sole agency for the education of American youth. Recognition was given to the important roles of the home, church, Boy and Girl Scouts, and other similar agencies with varying degrees of influence in the education of children and youth.

How Broad Should the Program of Education Be?

The Educational Advisory Committee of the National Association of Manufacturers further says, with reference to the breadth of the educational program, that

... educational programs and standards should be as broad and inclusive as practical considerations will permit; that the measureless value of diversity in educational theories and practices, manifesting itself in many ways beyond the few examples cited here, should be fully recognized by both the profession and the public; that this heterogeneity is a chief source of the strength and progress of American Education; and that in Education as in all other divisions of its cultural activities, America should be and remain a melting pot of professional experimentation, and of ideas, and purposes, and traditions that merge to make the nation great.²

Can Teacher-Hours-per-Child Be Reduced, Without Jeopardizing Results, Through Increased Use of Modern Materials and Techniques?

If the California public schools are to live up to the expectations of public schools in general as set forth in the preceding paragraphs, the answer to the above question is *no*. This conclusion is derived from consideration of the following factors: (1) The content of the school program; (2) the use of modern materials and techniques, consistent with

¹ *This We Believe About Education: Statement Concerning Education in America*, New York 20: Educational Advisory Committee and Education Advisory Council, National Association of Manufacturers (14 West 49th St.), February, 1954, p. 32.

² *Ibid.*

the amount of money available; (3) the additional services which are a part of the modern program of education; and (4) requirements in law pertaining to curriculum, attendance, and child labor. Each of these factors is presented in the material which follows:

1. Content of the School Program

- a. *Elementary Schools.* The evidence shows that much more must be taught in the elementary schools today. Fifty years ago (1904), the subjects shown at the left were prescribed by Political Code 1665 and were taught in the public schools of California. The column on the right shows additional content prescribed since 1904.

INSTRUCTION PRESCRIBED 50 YEARS AGO	INSTRUCTION PRESCRIBED SINCE 1904
Reading	
Orthography (including Spelling)	
Arithmetic	
Geography	
Nature Study	
Language and Grammar	
History of the United States and Civil Government	
Physiology and Hygiene, including effects of alcohol and narcotics	
Music	
Drawing	
Elementary Bookkeeping	
Humane Education	
	Physical Education
	Manual Training
	Domestic Science
	History of California
	Declaration of Independence
	Manners and Morals
	Fire Prevention
	Safety and Accident Prevention

While the above shows expansion in terms of legally required subjects of study, it does not show the great expansion of content within each of the subject fields. For example, music in the elementary school formerly consisted only of helping children learn to read notes and sing simple tunes. A modern music program consists not only of learning to sing simple tunes but of choral singing, rhythms, band, and orchestra. Likewise, the teaching of reading is now more complicated than it used to be. Reading is now taught to three or more groups within a grade, instead of to but one group. This calls for the preparation and checking of three or more sets of materials. Also the modern concept of "social studies" requires the teaching of more content than history and geography. In fact, the content for a modern social studies program is drawn from sociology, cultural anthropology, political science, economics, and social psychology, as well as from history and geography. Several of these social sciences have become established since 1904.

- b. *Junior High Schools.* The junior high schools of California have undergone considerable change during the past 25 years. This was to be expected because the reorganization providing for the junior high school took place only about 40 years ago. By 1929 some of these schools had made some curricular changes to meet the needs of all youth, but many needs remained to be met.

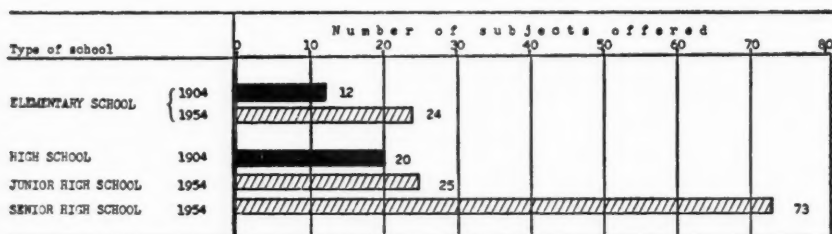
The primary objective of the junior high school is to provide for the needs of children in early adolescence who are beginning to discover and to develop their special interests and abilities. The junior high school provides a bridge from the common learnings of the elementary school to the more specialized offerings of the senior high school. For this reason there is an emphasis upon exploratory experiences in addition to the central core of common, required subjects of study.

Twenty-five years ago a typical junior high school program consisted of offerings in 12 subjects. Today, offerings may include more than 25 subjects.

- c. *Senior High Schools.* The content of the program offered in the public high schools has been expanded tremendously in the 50 years between 1904 and 1954. Not only has the program been expanded by the offering of new courses, but in a constantly expanding culture the content within courses has had to be expanded, so that more facts must be mastered and more skills developed today.

Fifty years ago a high school included offerings in only 20 subjects. Today, this same high school, which is now a senior high school, offers three years of instruction instead of four, but includes 73 subjects in its program.

The chart below shows a graphic summary of the comparative data which has been presented above.



2. Use of Modern Materials and Techniques

The use of modern materials and techniques has enabled the schools to teach more in the same length of time. Referring to the preceding chart, it can be seen that the content in the elementary schools has doubled in 50 years. Junior high schools, appearing later on the scene, have nevertheless kept pace with the demands of society and have

doubled their content offerings in 25 years. The senior and four-year high schools have more than doubled their programs due to society's demand for a comprehensive institution.

Fifty years ago the primary function of a public high school in California, as elsewhere in the United States, was to prepare young people to enter college. Since that time, changing social and economic patterns have had their impact upon the high school curriculum. High schools now endeavor to meet the diverse needs of all young people. Sometimes school people took the initiative in this movement to expand the curriculum. More frequently new services resulted from popular demand and pressure. The people, speaking through their elected representatives in the Legislature, constitute the source of most of the expansion which has taken place in the curriculum and in the services offered through public education.

If schools had failed to employ modern techniques and materials, it would have been impossible for them to have offered these new and expanded programs which results in so much more learning within the same amount of time as was available 50 years ago. There is, however, a great disparity in the amount and quality of materials used in the public schools and that available to the armed forces. The disparity results from the difference in the amount of money available for educational programs in the public schools and for similar programs directed by the armed forces. For example, last year the Navy spent in excess of \$4 per man for audio-visual materials. The expenditures for such materials, including related services and salaries, in the California public schools was \$1.50 per pupil.

3. *The Additional Services That Are a Part of a Modern Program of Public Education*

- a. *Elementary Schools.* Additional demands on the teacher's time and energy are in evidence in every function of elementary education. Records and reports, for example, have become complex and time consuming. Attendance accounting as it now relates to each child requires multiple considerations and entries. In the Sacramento City Schools, as an example, the report card requires the teacher to mark 44 items for each child each time a written report is sent home.

Other influences of a complex modern society impinge upon a teacher's time and energy. For example, a junior traffic patrol is now needed to help children get to and from school safely. Children now bring money to school for a variety of reasons. They maintain their bank accounts through the schools as a part of the school's program of education for thrift. They bring money from home for deposit in the bank, for lunch at school, and for contributing to many worthy fund raising community drives. Added and extended activities, of which the above are illustrative, require careful supervision from a teacher and involve time and careful accounting, especially since many children have their first experiences in handling money through these activities.

- b. *Secondary Schools.* Guidance in the high school is being intensified as the need becomes increasingly evident. If the perplexing personal problems of youth are to receive any thoughtful consideration by the school, then time must be provided beyond that which is available to a teacher who regularly meets 200 or more pupils in his classes every day. Both junior and senior high schools make provision for this service in addition to teaching time assigned. All schools have found it necessary to add more health services, particularly audiometer and eye tests. Today all schools regularly use testing programs to determine physical and mental factors, the educational needs, and the interests, skills, and special abilities of children in both elementary and junior high school. Similar services have also been found necessary at the senior high school level.

Further indication of such additional services now rendered by elementary and secondary schools is found in the breakdown of the teacher's work week shown on the opposite page.

4. *Legislative Requirements*

- a. *Curriculum.* The effect of legislative requirements on the curriculum of the elementary school has already been presented. Legislative requirements affecting the high schools are reviewed briefly in the following paragraphs.

California School Law of 1903 provided that the high school course of study should not be less than three years in length and should be designed to prepare young people to enter college. High school boards were not prohibited from prescribing additional courses of study. Pupils in the secondary schools were not required to have more than 20 recitations per week. In terms of semester periods of credit, this would amount to 120 credits earned in a minimum of three years of work. Instruction in the effects of alcohol and tobacco, and manners and morals was required.

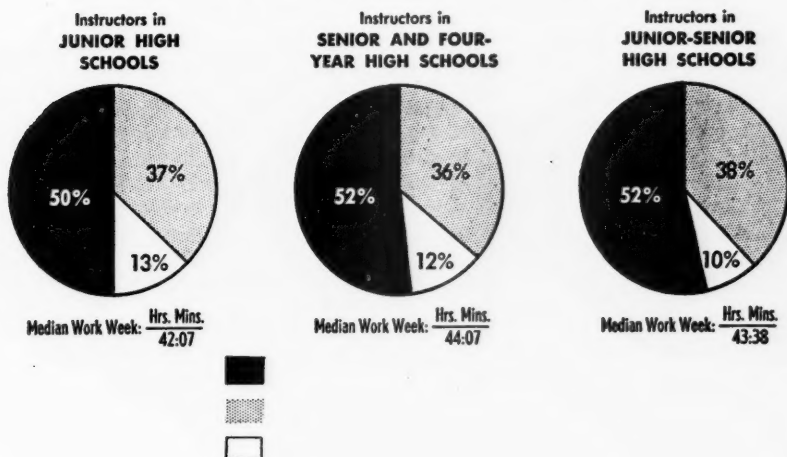
The legal requirements for course of study offerings in high schools of today are contained in Education Code Sections 10502-10504. In addition to earlier requirements, high schools are now required to offer instruction in physical education, fire prevention, effects of alcohol and narcotics, manners and morals, driver education, public safety and accident prevention, American history, Constitution, American ideals and institutions, and state and local government.

Rules and Regulations of the State Board of Education, Section 102, establish the present requirements for graduation from high school. This section provides for the completion of a minimum of 190 semester periods of credit for graduation.

Additional requirements set forth by the State Board of Education provide for the completion of 15 semester periods of instruction in American history, state and local government, and related subjects, plus 30 class hours of instruction in driver education, and a course in first aid.

WORK WEEK OF CALIFORNIA ELEMENTARY SCHOOL TEACHERS ¹

	Hours	Minutes
Median instructional time per week.....	22	: 04
Median assigned noninstructional time per week, such as Study hall, Home room, Library, Counseling, Student activities, Preparation period, Curriculum and adminis- trative duties		: 58
Median time per week spent in noninstructional duties such as: Planning and preparing the day's work; Correct- ing, classifying, grading work (includes tests); Clerical work (records, reports); Conferences (with principals, supervisors, counselors, student teachers); Pupil-parent conferences (guidance and counseling outside regular school day); In-service education (workshops, faculty meetings, school committees); Extra-curricular activities (Junior Red Cross, clubs, programs); Yard, hallway, caf- eteria, room supervision; parent-teacher association and school-community services	19	: 22
Median total work week.....	42	: 24

WORK WEEK OF CALIFORNIA HIGH SCHOOL TEACHERS ²

¹ "Survey of Teachers' Work Week in California Elementary Schools," MS. in preparation by Bureau of Education Research, California State Department of Education, for publication in *California Schools*, XXVI (1955).

² Bureau of Education Research, California State Department of Education, "Survey of Teachers' Work Week in California High Schools," *California Schools*, XXV (August, 1954), 339-55.

This brief resume of school legislation for the past 50 years reveals that the semester periods of credit required for high school graduation have risen from 120 to 190. This amounts to an increase of 70 semester periods of required instruction since 1903. Thus, it can be seen that legislation, too, has closed ranks with the forces which in 50 years have changed the public high school from a college preparatory academy to a comprehensive institution designed to help all youth to realize their own best potential and to fit into adult society in all phases of our economic and cultural life.

- b. *Attendance.* Every state in the United States has compulsory school-attendance laws. The State of Massachusetts passed the first state-wide compulsory attendance law in 1852. Other states passed similar laws, but it was not until 1918 that Mississippi became the forty-eighth state to adopt a compulsory school-attendance law.

The compulsory attendance laws of California have remained essentially unchanged since 1921. A summary of school attendance requirements in California is as follows:

Minors between the ages of 8 and 16 years must attend full-time school unless exempted for special reasons provided by law (Education Code Section 16601).

Minors under 16 years of age holding full-time work permits must resume regular school attendance within 10 days after becoming unemployed (Education Code Section 16651).

Minors between 16 and 18 years of age who have not been graduated from high school and who are employed regularly must attend continuation classes for at least four hours per week (Education Code Section 17001). When not regularly employed, such minors must attend such classes for at least three hours per day (Education Code Section 17003).

- c. *Child Labor.*—Child labor laws have been adopted by every state, and school officials, as well as other governmental agencies, have responsibility for administering these laws.

Is Modern Teaching Really Effective?

With more content prescribed and with more school activity added which is demanding of a teacher's time and energy, *is teaching more efficient today?* The evidence concerning achievement in elementary schools in California is both voluminous and convincing. Data gathered from many school systems show that, at the end of the eighth grade, children now learn more in less time than did their predecessors 18 years ago. In one school system, for example, now enrolling 32,000 children, the children who completed grade eight in 1935 were chronologically 15 years old. In 1953, 18 years later, the children in the same school system completing grade eight were 13 years, 10 months old, or 1 year, 2 months younger than their predecessors 18 years earlier. Yet the accomplishments of the 1953 class, as measured by standardized tests, show

children 1 year, 2 months younger to be achieving better proportionately than did their predecessors 18 years earlier. In fact, the 1953 group in this large school system ranked seven months above the national norm for the grade. Similar evidence is available in randomly selected school systems, large and small.

Similar achievements are noted in the high schools as indicated from the following information reported in the journal *Higher Education* for May, 1951.¹ In commenting upon the accomplishments of California seniors in the Armed Forces tests, it pointed out that students graduated from California high schools ranked 16.8 per cent *above* the average for the nation as a whole. In the series of five tests, California ranked at or near the top in four out of the five as indicated by the following record:

Reading. In ability to read for understanding, California public school seniors led the nation by a good-sized margin, with 67 per cent of the Californians above the national average.

English. In English grammar, spelling, diction, et cetera, California seniors ranked within one point of the top group, with 59 per cent of the California students above the mid-point for the country.

Civics. California led the nation in a test of history, government, and economics—with 62 per cent of the California public school products ranking above the national average.

Science. In physics, physiology, health, and biology, California seniors ranged ahead of the national average, with 58 per cent above the mid-point.

Mathematics. In mathematics, California fell slightly below the national median, with only 46 per cent of its group above the middle.

In short the above evidence points to the conclusion that teaching is more effective today even with more material to be taught.

Later figures for 1953 will soon be available which make even a better case for California high schools.

TRAINING AIDS USED BY INDUSTRY AND THE ARMED FORCES

Why Can Business, Industry, and the Armed Forces Evaluate the Use of Audio-Visual Training Aids So Positively?

The objectives of business and the armed forces training programs are almost always capable of being sharply defined, and, therefore, the success of their training programs may be precisely evaluated. If the business or industry training program does not increase sales and production, then it is a failure and is assessed accordingly. In the armed forces, the rookie undergoing a training program is able at the end of his course to operate a machine gun, recognize an airplane, put out a fire, or he is not able to do it. When a substantial number of a class fail on the operational tests, the course must be adjudged a failure. Since such

¹ American Council on Education, Commission on Accreditation of Service Experiences, "Accreditation of Service Experiences," *Higher Education*, VII (May, 1951), 199-200.

courses are usually of short duration and the results easily discernible, techniques of instruction can be rapidly changed and adjusted to produce the desired results.

How Have Training Aids Improved Instruction in Industry and the Armed Forces?

Examples of how training aids have improved instruction in training programs of this character are to be found in the following excerpts from Adams: ¹

- (1) The air forces rewrote their primary-school handbook to explain every maneuver with cartoons; now instructors save up to a week in primary with this handbook alone, because they no longer have to waste time trying to explain what the handbook's explanations mean.
- (2) Of all teaching aids, motion picture film is most versatile. Psychologists say 90 per cent of all our learning comes through our eyes, 5 per cent through our ears, and 5 per cent through other senses. That is why Blue Jackets learn more about the complex subject of fire control from a 15-minute motion picture film than they previously absorbed from a two-hour lecture. That may be why one army colonel finds that in his command, films have cut 40 per cent from the 1917 training time. That may be why the army has outlawed the classroom lecture as the poorest form of teaching.

Another example is reported by the Department of Health, Education, and Welfare. During the war, the use of the industrial training film "How to Read the Micrometer" reduced from 10 days to four hours the training time required in several factories to train large numbers of inspectors of small machined parts. In each case, the inspectors were required to pass a performance test in sizing keyed parts. The film-trained inspectors actually showed greater ability to read the micrometer and, therefore, sort the parts more accurately than inspectors who did not have this type of training.

What are the Expenditures by Business and Industry for Audio-Visual Education?

It is possible to provide rather accurate estimates of the huge sums allocated by large corporations for films and other training aids.² General Motors, Ford, and Chrysler each spends over a million and a half dollars a year on films, and over twice that amount on all forms of visual education when salaries of personnel are included. There are over 10 other corporations in the country, including leading oil companies, tire companies, the American Telephone and Telegraph Company, and DuPont, which spend at least as much on audio-visual materials for on-the-job training programs. Each of the companies expends this money on the education of a very small number of people by comparison with the number of people California has in its schools. The unit cost of these programs, therefore, is many many times that of the public schools.

¹ Walter Adams, "Can Our Schools Teach the G.I. Way?" *Montana Education*, XX (February, 1944), 3-5.

² Letter from the Jam Handy Organization, Detroit, Michigan, May 18, 1954.

How Much Is Spent by the Armed Forces for Audio-Visual Training Aids?

The armed forces spend large sums for their training aids programs. During the fiscal year 1953-54 the Navy spent in excess of \$3,000,000 for film and filmstrip production for use in their various training aid centers. This does not include money spent in research in the development of new training aids. Neither does it include any of the Navy's share of the \$14,000,000 spent by "Special Devices," a unit having the responsibility to develop new training aids (exclusive of film production) for the entire armed forces.

In 1954, the Naval personnel strength averaged 736,000 officers and men. Since approximately 50 per cent of this personnel are considered to be under training at all times, it can be seen, again disregarding the \$14,000,000 spent by Special Devices, that the Navy spent in excess of \$4 per man for training aids. Undoubtedly if the total figures were available, the amount would be two to three times larger.

Do the Objectives of Public Education Differ from Those of Industry and the Armed Forces to the Extent That Audio-Visual Materials Are Not Equally Useful in the Public Schools?

In fairness to traditional methods of instruction, it should be pointed out that business and armed forces training programs when compared to public education have *immediate* and powerful incentives to learning which are often lacking in the public schools. The business man has immediate incentive of making more money, of showing a great financial profit. The soldier has the powerful incentive of survival to stimulate him to learn. He is also under stern military discipline which is undesirable in our public schools. By comparison the schools have much more difficulty in justifying the huge expenditures necessary to substitute newer training aids for older methods.

These differences also make it more difficult to appraise the results of the use of such materials and techniques in public education. Research studies show audio-visual materials and techniques are similarly effective when correctly used in the public schools. However, the program of public education is concerned with activities covering the entire range of life, while the training objectives of business, industry, and the armed forces are by comparison very restricted and specific.

FACTORS AFFECTING LEARNING

What Does Research Tell Us About the Learning Process?

Much of man's effort in educational research has been directed toward discovery and application of information that can be utilized to improve teaching. A tremendous amount of research has been carried on because there has been disagreement as to the ways that children learn and the teaching methods that are most effective.

Much of the research done since 1890 suggests that children learn best when their teachers

1. Use learning situations that are meaningful and hold lifelike importance to children.
2. Use varied learning activities.
3. Provide pupils practice in applying generalizations that may be made from specific learning activities.

Some implications for curriculum building that can, with reasonable safety, be derived from educational research done during the past half century are shown here:

1. *Readiness for learning*—This is not constant with chronological age. The growth rate of each individual is continuous and gradual but it may be more rapid at times than others. Certain traits may develop faster than others.
2. *Motivation for learning*—The needs, interests, and desires of children must be taken into account when learning experiences are being provided.
3. *Transfer of training*—Children remember what they have learned in relation to their ability to use it. The information being learned must possess (1) meaning, (2) organization, and (3) structure. This helps to eliminate learning of isolated facts which may be soon forgotten.

What Is the Range of Mental Ability in Any One Grade of a Typical Elementary School or High School?

In an investigation¹ of seven-year-old pupils in New York state, it was found that the middle 80 per cent of the group had a range in educational achievement of 1.5 grades, or 3 semesters. If the indicated school achievement is translated into school levels, the entire population of seven-year-olds ranged from the first grade, or below, to the sixth. The ten-year-olds showed an even wider range. The range of the middle 80 per cent was from 3-A to 6-A, and that of the total group was from the first grade through the ninth. However, the actual grade placement of these pupils was found to be much narrower; it was concluded that the classification of pupils failed to provide for the actual range in achievement which they showed.

In a study² of the schools of Schenectady, New York, it was found that the range of mental ages and intelligence quotients in any one grade for all the pupils tested is much greater than the range between the school medians. For example, of the 900 children in the first grade that took the intelligence test, the poorest pupil has a mental age of 3 years and the best has a mental age of 10 years, a range of 7 years in mental ability. In the third grade, the range is 6½ years, and in the fifth grade it is 11 years. About 1.5 per cent of the first grade pupils have higher mental ages than the median mental age for the third grade, and about

¹ Ethel L. Cornell, *The Variability of Children of Different Ages and Its Relation to School Classification and Grouping*, Educational Research Studies No. 1, Bulletin No. 1101, Albany, N. Y.: University of the State of New York, 1937. See also Gertrude Hildreth, "Individual Differences," in W. S. Monroe, *Encyclopedia of Educational Research*, New York: The Macmillan Co., 1950 (rev. ed.), pp. 564-71.

² W. W. Cox, *Levels and Ranges of Ability in New York State High Schools*, Educational Research Studies, Bulletin No. 841, Albany, N. Y.: University of the State of New York, 1932.

1 per cent of the third grade pupils have lower mental ages than the first grade median mental age. Less than 1 per cent of the third grade pupils have mental ages higher than the fifth grade median, but more than 6 per cent of the fifth grade pupils have mental ages lower than the third grade median mental age.

In a typical California public high school, tests were administered to students when they were in the ninth grade. The median chronological age when the test was taken was 15 years. The average mental age of the three hundred students was slightly above their chronological age. The spread of mental ages was over ten years. One student had a mental age of slightly better than 10 years. Another student had a mental age of almost 21 years. The slow student could be expected to do the kind of work which would be done by the average pupil in a fourth or fifth grade. The bright student could be expected to do the kind of work characteristic of a sophomore or junior in college. The rest of the students were scattered in between.

Findings such as these show the utter futility of considering the curriculum of the public schools as a series of graded courses of study requirements to be mastered equally and uniformly by all pupils at a given grade level. The effect of such research findings is to change teaching practices so as to provide for a much wider range of individual pupil achievement within each grade level. Obviously, this imposes a much heavier burden upon the teacher for lesson planning, for selection of instructional materials, and for appraisal of pupil achievement.

THE MOBILITY OF POPULATION

How Does Migration into California Affect the Educational Program?

Migration into California from 1940 to 1950 was 3,679,000, bringing the total population to 10,586,223. This was a 53 per cent increase in a decade. The population of five southern counties and eight northern counties had a greater increase than that of the state. An example is Contra Costa County which increased 196 per cent.

Eighty and one-half per cent of the population is classified as urban; 19½ per cent rural—of which only 5 per cent are rural farm dwellers.

Many of the people coming to California are from underprivileged rural areas and need help in becoming adapted to western ways and in developing the skills for urban life.

Some of the implications derived from the facts presented above are: (1) A community with a rapidly increasing population needs educational leadership to build a flexible program which can be adjusted to meet emerging needs of the people, and (2) such a community also needs expanded guidance facilities so that children and their families will have support and assistance in making adjustments to new problems involving housing, employment, and recreation.

How Does Mobility of Population Within California Affect the Education of the Children?

The effect of the mobility of population upon the schools can be better understood by the information compiled from the Fresno County project on "The Educational Program for Migrant Children." This study was undertaken principally to reveal facts concerning the per cent of pupils who move during the school year and to learn the size of total enrollments handled by the individual teachers during a school year. At the same time, school registers were examined for the purpose of determining the per cent of children with a Spanish language background.

In three schools with a total combined enrollment of 2,896 pupils, 65 per cent remained in the same school less than ten school months, and 41 per cent had a Spanish language background.

THE HOLDING FUNCTION OF THE PUBLIC SCHOOLS

What Economic Change Has Occurred in the Last Half Century That Makes It Imperative That the Schools Prepare to Keep Children Longer?

In 1900, a large number of children were at work instead of in school. The advance of our industrial civilization has made it possible to produce more goods with machines so that it is no longer necessary for men, women, and children to toil long hours in order that the people may have food, clothing and shelter. The productiveness of workers has been so increased by the use of machines that the hours of labor have been substantially shortened, and the labor of children in factories is not needed at all.

In 1900, according to government statistics, 32 out of every 1,000 wage earners in the manufacturing industries were under 16 years of age. In 1930 only 5 out of 1,000 were under 16 years of age.¹

Are the Educational Requirements for Employment and Apprenticeship Increasing?

The answer to this question is *yes*. The industrialization of our economy has resulted in gradual but marked decline in the number of jobs available to unskilled individuals. Many businesses and industries require high school graduation as a minimum requirement for employment. Young people who leave school without completing high school tend to find great difficulty in securing any kind of work which can lead to ultimate satisfaction on the job. In fact, directors of employment agencies report that employers are even beginning to establish a college education as the basic requirement for many office and service positions. Most states now have in their civil service codes the requirement that job candidates shall have completed high school or have qualified for a high school diploma in some other manner. Unions have established

¹ *Our Social Progress*. New York: National Association of Manufacturers, 1942 (Pamphlet).

the same requirement for entrance into apprenticeship programs. But far more important than these formalized requirements is the almost universal demand among private employers that job candidates have a high school diploma.

Would Young People Benefit More from Going to Work Than from Remaining in School?

The idea that many young people of secondary school age would benefit from going to work rather than from remaining in school is completely unrealistic. It disregards the very evident and simple fact that business and industry and agriculture can provide jobs for only a very few individuals within this age group. The choice is not between school or work; the choice in most cases is between school or idleness. Several factors have combined to lessen the need for youth in the labor market: increased productivity per worker, the increased life span of the American worker, and shifts from family productive units to an economy of wage-earners.

The percentages of workers in productive fields have declined sharply, with the increases coming in the professional services and skilled areas not open to the young untrained worker. Agriculture is one of the areas of most dramatic change. As a result, untrained youths more and more find that their only opportunities for employment are of the most menial and "blind-alley" type. In California, as elsewhere, the outstanding shifts have been away from unskilled labor and agriculture and into urban "white collar," managerial, and professional occupations.¹

What Effect Will Family Income Have on School Attendance?

To the extent that unfavorable financial situations have worked to limit the attendance in high schools, certain shifts in the distribution of income seem pertinent. There has recently come a rather dramatic leveling of incomes—a leveling upward, as well as downward. For the population as a whole, the 1948 average income before taxes was \$4,143—which was about one-eighth of the income of the highest 1 per cent. But in 1939 the top 1 per cent average 12 times as much as the general mean.² In 1946, only 10 in 100 families earned \$5,000 or more—now 25 in 100 do.³ Whereas in 1929 about 65 per cent of the families earned less than \$3,000 (in 1951 dollars), in 1951 only 46 per cent of the families were below that level.⁴

Thus, to the extent that high school drop-outs have come from the lower economic groups, we can expect to see greater numbers of students continuing their high school and college educations in the years ahead.

¹ Davis McEntire, *The Labor Force in California*. Berkeley, California: University of California Press, 1952, p. 56.

² *Business Week*, May 16, 1953, p. 56.

³ *United States News and World Report*, XXXV (July 3, 1953), p. 76.

⁴ *Business Week*, October 18, 1952, p. 29.

What Other Factors Will Tend to Keep Youth in High School for a Longer Period of Time?

The increased necessity of special education, due to increased complexity of our society—technological, political, inter-personal, et cetera—works to prolong schooling. Reference has already been made to the increased functions which have been given to the schools, and which have made necessary a longer “common school.” Those concerned with the nation’s health and safety, those interested in child welfare, the people working with juvenile delinquency, and many, many others have all called upon the schools to help deal with these problems.

There is another factor which will further complicate the difficulties encountered by youth in entering the labor force during the next few years. The high birth rates which began during the war, and which have continued to remain at a high level, will soon bring to the labor market many more new workers than the number of workers who will be leaving due to retirement.

CITIZEN PARTICIPATION IN EDUCATION

How Do Citizens Assist in Formulating Educational Policies?

The participation of citizens and citizen groups, committees, and councils in school affairs is one of the most significant developments in public education. It helps the schools solve specific problems by making available the knowledge and experience of many community leaders. On the other hand, such participation gives to these leaders an intimate knowledge of the school and its problems and provides an excellent means for the intercommunication between the school and the community. Confidence in the schools is engendered and support for the educational program is stimulated.

The problem of public participation in education in California has received primary recognition by the California Association of School Administrators, whose 1950 Yearbook was devoted to “The People and Schools of California.” It is pointed out that the development of school-public relations is “from publicity to public relations to (today and tomorrow) public participation.” Many instances of public participation are cited which have benefited the school program.¹

Parent-teacher Associations. Among the most active lay groups working in close co-operation with the schools at every level is the California Congress of Parents and Teachers, Inc. This state-wide organization has grown from 40,000 members in 1926 to 1,500,000 in 1954. Parent-teacher association units have established a study program for understanding the modern school curriculum. Parents are calling upon educators to explain and justify their procedures. Pupil deficiencies or abilities in expected learning are the core topic for P.T.A. meetings.

¹ *The People and the Schools of California*, 1950 Yearbook of the California Association of School Administrators. Pasadena, California: The Association, 1950.

The Congress of Parents and Teachers in 1954 initiated and is now developing on a state-wide basis a secondary curriculum study course called "A Look at Our High Schools."

Citizens' Advisory Committee. Citizens' advisory committees are a relatively new but rapidly growing development in which California has been a leader.¹ Henry Toy, Jr., Director of the National Commission for the Public Schools, reported that in 1951 more than 1500 citizens' school improvement committees were listed in his office. California was listed among states each having from 100 to 149 citizens' committees. New York State alone exceeded this number.

Advisory Committees in Vocational Education. The most extensive and intensive use of advisory committees is in the field of vocational education. The use of advisory committees is an integral and essential part of the California Plan for Vocational Education. The Division of Vocational Education of the federal Department of Health, Education, and Welfare provides manuals for the guidance of school authorities and committee members in the organization, objectives, procedures, and functions of advisory committees.

¹ John H. Hull, *Lay Advisory Committees to Boards of Education in the United States*. California Public School Administration Service, Research in Administration, No. 1. Summary of Ph.D. dissertation, University of Southern California, Pasadena, California: California Association of School Administrators, 1949, p. 22.

A LOOK AHEAD AT CURRICULUM¹

FRANK B. LINDSAY, *Chief, Bureau of Secondary Education*

I remember my elementary school teachers very well, even after the lapse of years. Although neither they nor I knew it at the time, they were giving me lessons in how to teach. I mention here three incidents to illustrate principles of instruction applicable alike to elementary and secondary education.

Evidently in my first year at school I did not show marked readiness for reading, since my teacher, Mr. Charles Ellar, was not sure at the close of the term that I should be promoted. Finally he said that if I practiced reading my primer during the summer it might turn out that I could hold my own in the second grade.

I recall one bright Sunday afternoon in August when Mr. Ellar, accompanied by his best girl, drove to our farm in a rubber-tired red-trimmed buggy drawn by a chestnut horse whose coat and harness shone in the sunshine. He asked me whether I had kept up my reading and listened to me render several pages from the primer. Then he smiled and said he was sure I should go into second grade.

My vivid recollection of the occasion—I can still see his blue serge Sunday suit!—assures me that a fundamental principle of good teaching is that a teacher should know each pupil as a person in his own right and encourage each to learn in his own way at his own pace. That Mr. Ellar, who was not returning to teach the next year at Vernal School, would drive several miles out of his way to ascertain my progress, marked a milestone in my attitude toward school. I knew I was not just a name in his school register but someone for whose success he cared.

It was fortunate for me that my first teacher was someone like Mr. Ellar. I know now that my second grade teacher was a very ill person whose energy was not equal to coping with the assorted pupils and several grades with whom she had to deal. Although Mr. Ellar had left a note about my reading progress after he visited me, Miss Pansy Wagner was dubious about my ability to keep up with the class. She also did not approve of my trying to write with my left hand. My father insisted that I should be allowed to follow my natural bent; reluctantly she acquiesced but said it went against her judgment.

The one clear memory I have of that year was of an occurrence in an art lesson. We second graders were coloring figures in outline of some boys and girls at play. Either because of overanxiety or lack of muscular control I got the blue of a girl's dress penciled also over her

¹ Address delivered at meeting of California School Supervisors Association, San Jose, California, November 10, 1954.

hands. As soon as I realized the enormity of my error I tried to cover it by bearing down on the hands with yellow crayon. Of course, they turned a vivid green. When my teacher inspected my drawing she did not point out that I had just learned on my own a fact of color mixing, but sniffed, "Whoever heard of a person with green hands! Everybody knows yellow and blue makes green."

From this teacher I learned how much more important to a pupil is the attitude of his teacher toward him than the subject-matter of lessons. It is not what we think we are teaching that counts, but really what mental and emotional bias toward learning we are setting up in our pupils.

The third incident I wish to mention took place when I was in the fifth grade. To foster school libraries the Indiana State Department of Education sold at substantial discount each year a packaged library of titles selected to interest pupils in both early and later school grades. Of course, such an item of sheer extravagance could never be paid for out of district funds, but the parents in the neighborhood were encouraged to raise the sum required. Usually it was done by holding a box-supper and social. With mounting excitement we children watched the spirited bidding of our elders for supper partners, always with an eye to the proceeds. If the boxes sold well, the school could buy the complete book collection instead of one of the lower priced partial sets. Local pride was involved too; Vernal School had to get as many new library books as the other one-room school in the township.

That year among the library selections purchased was a book about *One Hundred Songbirds of Indiana* illustrated in color. At the term's end I asked Mr. Will Reeves' permission to keep the book through vacation. I recall that I sighted and sketched 67 of the hundred birds during the summer. From this experience I derive three principles of school operation. First, a successful school acts in close partnership with families to promote the learning of children. Neighborhood and school must team together to effect it. Second, school is only the start of learning—real growth comes through independent effort continued after school has shown the way. And third, books are to be used as doorways to environment; effective materials for self-instruction lie all about us.

II

It is because we are human beings that we need education. It is because we are Americans, citizens of this Republic, that we require public high schools. We who are now alive are all there is of the United States. The past is summed up in us and the future likewise is implicit in our lives. As Walt Whitman phrased it in his "Song for Occupation," ". . . The gist of histories and statistics as far back as the records reach is in you this hour. . . ."

We do believe, as stated in *A Framework for Public Education in California*, that "Public education is the chief instrument for achieving the goals of American democracy"; and that "Education must develop the basic principles and fundamental ideals of American democracy within the minds and hearts of American youth." We believe that indoctrination of youth to which we are frankly committed is no narrow nationalism but is essential not only for our survival as a people but also for the betterment of all the peoples of the entire world. As we demonstrate the practicality of representative government in affording our own people a good life and good health with liberty, this Republic may hope to influence other nations to follow our example.

After all, civilization is a very recent adventure to be undertaken by the human species. History repeatedly tells us how long and painful, in terms of mere generations, has been the struggle to achieve recognition of the dignity and worth of individual human lives. Thanks to our machinery of democracy, Americans have enjoyed an experience unique in human history with respect to natural resources and horsepower harnessed to provide us all a great and good life. We take automobiles, bathrooms, doctors, and supermarkets for granted. Yet even in this year of 1954 throughout the world, more people travel on their own feet than in any other way; more people live in mud-straw huts than have any other shelter; more people must expect to die in less than half our normal span of years; and more people eat what they grow or starve when harvests fail.

To be devoted to American democracy means that we are committed to three historical principles, namely, that

1. Business and technology are indispensable to civilization; for commerce is the foundation of freedom since trade is intercourse by persuasion, not force.
2. Free private enterprise does foster initiative, personal independence, and an adventurous spirit; the rights of an individual are realized in communities which employ business and technology to insure their survival.
3. Uncertainty is the commonest condition of human living; but it is the necessary condition for freedom, aspiration, and the development of human conscience.

To believe inhuman freedom means that we believe each generation must make its own history and cannot count on achieving final solutions. By its very nature, creative achievement is disruptive to established order, for unexpected by-products pose new problems. There are verities, however, to be discerned in our history and our character as a people. We are coming to appreciate the unity and continuity of American culture with the whole of Western civilization, and in turn, of our

debt to other civilizations. Again, the distinctive fertility and inventiveness in which we pride ourselves derive from the diversity of creed and custom brought to us by peoples who have settled among us. The moral and material health of our nation is a product of our passion for non-conformity. The wilfulness of Americans which sometimes frightens and repels contemporary peoples may find at last a way for all of the human species to enjoy good food, good health, good neighbors, and the good life.

As human beings and as Americans our minds have been made up for us by our own past. We choose what we propose to do within the limits of the structure of our species, of our national environment, and of our cultural heritage.

III

If you have been willing to follow me so far in my seeming digression, you may have anticipated the connection I would like to make between a hasty review of our qualities as Americans and future developments which may occur in secondary school curriculum. We do not aspire, we do not pronounce, we do not strive in a vacuum. High schools reflect community thinking. High schools have been established because citizens wanted them. There is talk going around that education is a partnership between schools and parents, that schools are in business with and for their communities. That is quite true; but school people have not always seemed to realize the full implication of the situation. Young people grow up anyhow, with or without schools; high school is intended to keep adolescents from growing up just anyhow. In other words, youth educates itself, at its own rate and in its own ways, through living in families and neighborhoods. High school is supplemental; but in the United States high school is no luxury but an essential supplement.

The curriculum, which is the heart of high school and the reason for it, changes as people want change. Educators do not make curriculum; parents, voters, taxpayers, school board members, and legislators make curriculum.

Ever since the National Council of Education's Committee of Ten began to study the secondary school program—and recommended in 1893 four college-oriented curriculums: classical, Latin-scientific, English, and modern languages—many groups of educators have given attention to this level of public education. I need only to mention such landmarks as the report of the National Commission on Vocational Education which resulted in the Smith-Hughes Act of 1917, and the Commission on the Reorganization of Secondary Education which issued the Cardinal Principles of Secondary Education in 1918. Within the last quarter century alone there have been more than sixty notable studies such as the National Survey of Secondary Education; the Regents' Inquiry in New York State; the Stanford Language Arts Study; the

Eight-Year Study sponsored by the Progressive Education Association; *Education for All American Youth*; the Harvard Report: *General Education in a Free Society*; and Life Adjustment Education for Youth. The vitality of secondary schools has been demonstrated by their ability to survive so many diagnoses of their ills and attempted cures without developing at least an inferiority complex.

I submit that the difficulty in effecting basic changes in secondary education has not been due to lack of studies by responsible educators. Rather it stems from two fatal oversights. Frequently secondary school educators have been talking too much among themselves. To establish a sound base for changes, secondary education cannot be viewed in isolation either from elementary education on the one hand, or from college and business and industry on the other. High school students are products of elementary schools; their prior teachers must participate in our deliberations. High school graduates will enter college or employment. In their respective capacities, college instructors and labor and management must likewise face along with us the facts about our generations of adolescents.

The other sin of omission committed by professional educators concerned with secondary schools has been that of leaving out of their meetings the citizens—the parents, taxpayers, boards of education, and legislators. I might add that the final decisions cannot be arrived at without also taking into account and into camp the high school students themselves.

Educators need constantly to communicate with lay people so that their views of what education should be may be affected. The American public, I take it, considers the school linked with the family in a mission to conserve and stabilize basic values of our society. But people have different images of the American high school. They lack and need to gain a common conception of what its total job is. We may not all be able to agree on how to do the job nor what the proper answers are but we can expect to work together in a common pattern and to share a common sense of the direction in which we want to go.

Probably enough studies have been made. The public must look with us at their meaning in order for their findings to have effect. The people have decided to take a look for themselves. We have the California Congress of Parents and Teachers sponsoring study groups among their own members to learn about high school programs locally at first hand. We have the National Citizens Commission for the Public Schools encouraging businessmen to seek objective evidence about the state of educational affairs in their communities. We are getting such publications as those recently distributed by the United States Chamber of Commerce and the National Association of Manufacturers. We have had to take the public into our confidence. It is about time. Public schools belong

to everybody; everybody should have a part in them. We need to have people of all classes working in behalf of them.

The curriculums that junior and senior high schools should offer cannot be determined without regard for certain so-called noninstructional aspects of secondary schools. Class size is one of these; as of now, nobody has scientific evidence about how many pupils one teacher can direct in learning in a class of a given subject. Research is much needed here. But one principle we can establish in advance: a teacher should not have more students in a class than he or she can know as individuals.

Closely related to instruction is pupil counseling. A corollary to the proposition that a teacher should know pupils as persons probably must be that if teachers are to focus attention on boys and girls, guidance cannot be delegated to somebody else. This is not intended to deny the place and importance of a professionally trained person to direct counseling and to instruct teachers. But if a teacher is to guide as well as to teach, the daily schedule of high school, the common practice of meeting five classes in a six-period day, and the very arrangement of a typical classroom may all need thoroughgoing overhaul. Such considerations point up how imperative it is to have the public sit in on discussions of secondary education.

Another difficulty is the lag in preparing teaching materials with appropriate content centered about such schoolwide concerns as health, conservation, family living, and social and business competence. To conduct a core program blending two or more subjects, there must be suitable reorganizations of content. We cannot expect teachers to do new things with bare hands. Again, the public must come actively into the picture if suitable instructional materials are to be provided and used. The classroom library, for example, is in point.

In this connection I want to insert a word about college faculties who are horrified to discover among freshman students some high school graduates who barely can read and write. They are forgetting that public schools are for all youth and admittedly not all of them are capable of intellectual achievements. To assume that a high school diploma is evidence of readiness for college admission is not tenable. The comprehensive high school undertakes to offer appropriate studies to all boys and girls of the community and those of one talent do not necessarily have that one in the area of intellectual disciplines. High schools are charged to make the best citizens they can of all comers. The remedy for colleges is to stand their ground as selective, not custodial, institutions. On the other hand, they and we have a right to demand that high school graduates of college caliber get opportunity in high school to achieve their best. It is encouraging that public groups are now showing concern that capable learners have their chance in high school as well as pupils of lesser endowment. A new concept is urgently needed

on the part of educators and the public of what high school credits and a diploma mean.

IV

Curriculum in secondary education will continue to embody the basic values of American society. It will not be the same in every place because Americans do not value unanimity over diversity. Furthermore, American culture is basically not intellectual; Americans are not intrigued with logical elaborations but prefer to try practical shortcuts to solve their problems. So far Americans have made out. Their outlook is bound to influence the comprehensive high school program. In any case educators as a profession do not have the obligation to define the objectives of public education; these objectives emerge from our culture at large, from the people of whom professional educators are some members.

The principal academic studies will continue to be the central subject matter of the curriculum because one task of high schools is to make past experience usable for youth in living today. Mathematics, sciences, the social studies, literature, and the fine and industrial arts are names given to the heritages of human experiences with respect to human relations, in connection with environment, and on moral and spiritual planes of action. I have no doubt that there will be less compartmentalization among subjects in the future. The trend is toward teamwork in drawing upon ideas from any source to bring to bear upon the solving of problems. Emphases will shift because each generation finds its own brand of problems and solutions. Secondary curriculum can never be neatly packaged and labeled for all time.

We may confidently assert that one other quality will characterize developments in secondary school curriculum. Students will be encouraged and taught to assume responsibility for their conduct and learning. This follows inevitably from a change in preoccupation with subject-matter for its own sake to preoccupation with studies as aids to growing up. It is likewise implicit in the announced purpose of modern high schools to give every pupil a chance to find something to do that he can do reasonably well which will assist him toward achieving responsible maturity. Inescapably it accompanies the process of self-evaluation of student learning. Taking responsibility for learning and conduct is also a reason for the emerging status of co-curricular activities. It is realized that these are not merely diversionary outlets for surplus energy but means for shaping character and citizenship.

Coupled with learning as a demonstration of connection in human affairs, past and contemporary, and of becoming responsible for one's judgments and behavior, the future curriculum will be organized to help young people achieve balanced development. Integration is a process and product within the individual. The achievement of integrated person-

alities by students depends in great measure upon the quality of the teaching they encounter in high school.

In this respect we face a grave danger for the immediate future. The rapid increase of attendance at high school, lack of housing, and shortage of teachers will tend to reduce the quality of teachers with whom secondary school students are associated in their classes. To reduce standards in teacher preparation can be no service to high schools. It would be better to devise means for students to spend more hours of the school day with fewer but able teachers than to pass in successive periods into the hands of numerous less competent ones. The crying need of the day is to attract into high school teaching persons of broad scholarship who are not narrowly specialized but have developed humanity and integrity along with intellectual interests.

The Dialogues of Alfred North Whitehead contain passages which are pertinent in this connection, for example:

. . . Once learning solidifies, it is all over with it. . . . My fear for humanity is that it may lose . . . capacity for origination, for novelty, curiosity, and liking for investigation. One of the few places where it is still free is here in the United States.

To conclude, the curriculum of secondary schools will more and more concern itself with the 'teen-agers who attend them. It will give thought not merely to subject-matter but equally to what the learning situation does toward helping boys and girls achieve all-around maturity. Sometime in the future high schools and parents will also get to know each other better and come to trust each other. Working together, parents and secondary schools will aid more young people to discover that learning can be a joyful and thrilling, around-the-clock, yearlong, and lifelong undertaking embracing the whole of living.

The eternal verities are renewed in every generation. They are the American character, the good land of the United States, and the God-given spirit of humanity everywhere. Of such are the elements of high school curriculum, present and to come.

CERTIFICATION IN CALIFORNIA PUBLIC SCHOOLS, JULY 1, 1953, TO JUNE 30, 1954

JAMES C. STONE, *Specialist in Teacher Education*

The typical person certificated during the fiscal year 1953-54 was a woman, 23 to 32 years of age, who was a native of one of the central states. She held a bachelor's degree granted by an accredited California college or university—probably one of the state colleges. She had completed the requirements for a major in a special subject field and a minor in social studies. She was likely to have done some graduate work in this state, in a private college or university. She was granted a general elementary credential issued on direct application to the State Board of Education through the Credentials Office, and was working toward completion of the requirements for an additional credential in the field of supervision or administration.

This profile of the typical person certificated during the fiscal year 1953-54 for public school service in the State of California has been drawn from an analysis of the annual statistical report on certification presented to the State Board of Education at its meeting in July, 1954. Certain general findings based upon the data compiled for that report are summarized in the following article under three headings: I, Personal Characteristics; II, Professional Preparation; and III, Number and Type of Documents Issued and in Force.

I. PERSONAL CHARACTERISTICS

Number. A total of 48,576 persons were recipients of 57,417 credentials and life diplomas granted by the California State Board of Education during the fiscal year 1953-54. This is an increase of 5,639 persons (13.1%) over the number reported for the 1952-53 fiscal year.

Sex. Of the 48,576 persons certificated, 30,018 (61.08%) were women; 18,558 (38.20%) were men. In the previous fiscal year the proportion was 26,943 (62.75%) women to 15,994 (37.25%) men.

Age. The ages of the persons receiving certification documents in 1953-54 and the preceding year, 1952-53, ranged from 19 to 86 years. Table 1 shows the number and per cent of persons certificated during these years who were in each of six age groups. In both years, more of the persons certificated were in the group from 23 to 32 years of age than in any other age group. The next largest group was in the range from 33 to 42 years of age.

In 1953-54 the ages ranged from 19 years (2 men) to 86 years (1 man). The oldest woman certificated was 77 years of age. In 1952-53,

1 man and 2 women who were 19 years old were certificated, and 1 man who was 82. The oldest woman certificated in 1952-53 was 80.

Comparison of men and women by age groups shows the following variations among those certificated in 1953-54: 47 per cent of the men and 29 per cent of the women were from 23 to 32 years of age; 33 per cent of the men and 25 per cent of the women were from 33 to 42; 12 per cent of the men and 22 per cent of the women were from 43 to 52 years of age.

TABLE 1
DISTRIBUTION BY AGE GROUP OF PERSONS CERTIFICATED DURING 1953-54 AND 1952-53, WITH PER CENT OF TOTAL IN EACH GROUP

Years of age	1953-54		1952-53	
	Number of persons	Per cent of total	Number of persons	Per cent of total
19 to 22-----	1,549	3.2	1,428	3.3
23 to 32-----	20,394	42.0	17,821	41.5
33 to 42-----	14,279	29.4	12,315	28.7
43 to 52-----	8,919	18.3	8,138	18.9
53 to 62-----	2,911	6.0	2,735	6.4
63 to 86-----	524	1.1	497	1.2
Age not given-----			3	
Total-----	48,576	100.0	42,937	100.0

Place of Birth. Table 2 shows the number and per cent of persons certificated in 1953-54 and 1952-53 who were born in California, in western states other than California, in other geographic areas within the United States, in territories or possessions of the United States or in foreign countries. In both years, about a third of the persons certificated were natives of the central states; slightly less than a third were native Californians and a seventh were natives of other western states; a tenth were natives of eastern states.

II. PROFESSIONAL PREPARATION

The available data on the college preparation of the persons to whom credentials were granted in 1953-54 were examined statistically to determine the amount of college work they had completed, in terms of years of study;¹ the number who held baccalaureate or graduate degrees; the

¹ The term "years of college work" used in this report is based upon a grouping of the credit hours or semester units of college work shown by each applicant in the following manner: 1 to 29 units = 1 year; 30 to 59 units = 2 years; 60 to 89 units = 3 years; 90 to 120 units = 4 years.

location and kind of institutions from which they had received these degrees; and the major and minor fields of study undertaken. The findings have been summarized under eight subheadings in the following pages.

TABLE 2
DISTRIBUTION BY REGION OF BIRTH OF PERSONS CERTIFICATED IN 1953-54 AND 1952-53, WITH PER CENT OF TOTAL BORN IN CALIFORNIA OR OTHER REGIONS

Place of birth	1953-54		1952-53	
	Number of persons	Per cent	Number of persons	Per cent
Central states ¹	15,637	32.2	13,851	32.3
California.....	14,208	29.1	13,056	30.3
Western states ²	7,407	15.2	6,219	14.4
Eastern states ³	5,023	10.3	4,348	10.1
Southern states ⁴	4,363	8.9	3,627	8.4
U. S. possessions or foreign countries.....	1,920	3.9	1,820	4.2
Birthplace not stated.....	18	.4	16	.3
Total.....	48,576		42,937	

¹ Central states include: Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Michigan, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

² Western states include: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Texas, Utah, Washington, and Wyoming.

³ Eastern states include: Connecticut, Delaware, District of Columbia, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

⁴ Southern states include: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Virginia, and West Virginia.

1. Amount of College Work Completed by Credential Candidates

Of the 48,756 persons certificated in the 1953-54 fiscal year, 83.2 per cent (40,406) had completed four years or more of college work. Only 455 of these persons did not have the bachelor's degree. Three per cent (1,479) did not state the amount of college work completed in terms of the time spent. The remaining 13.8 per cent (6,691) who had completed less than four years of college work indicated the amounts as follows:

- 1,940 (28.99%) had completed 3 years of college work
- 3,226 (48.22%) had completed 2 years
- 894 (13.36%) had completed 1 year
- 631 (9.43%) had completed less than 1 year

A few of the applicants who had completed less than four years of college work were granted credentials that were based upon experience rather than collegiate preparation, such as those authorizing the teaching of vocational arts or classes for adults. Most of them, however, received emergency credentials.

Figures for the preceding year show, for comparison, that of the 42,937 persons certificated during 1952-53, 79.3 per cent (34,029)—all but 199 of whom held the bachelor's degree—had completed four years or more of college work; 12.4 per cent (5,335) had completed less than four years; 8.3 per cent (3,573) did not state the time spent.

2. *Colleges and Universities Granting the Degrees Held by Credential Candidates*

Of the 39,951 persons with bachelor's degrees who were certificated during 1953-54, more than one-half (21,854, or 54.7%) had received those degrees from colleges or universities in California; 18,097 (45.3%) held degrees from out-of-state colleges or universities.

Of the holders of degrees from California institutions, 384 were graduates of colleges not accredited by the State Board of Education to recommend candidates for credentials. The credentials granted to this group were of the types not requiring a standard bachelor's degree (i.e., provisional, adult education, and certain vocational credentials), or were based upon a statement from a recognized graduate institution which had accepted the bachelor's degree from an unaccredited institution.

Of the 21,470 persons holding baccalaureate degrees from accredited California institutions, about two-thirds were graduates of the state university or the state colleges, and one-third were graduates of private institutions. The figures were as follows:

- 8,088 (37.67%) were graduates of California state colleges
- 6,993 (32.57%) were graduates of private colleges or universities
- 6,389 (29.76%) were graduates of one of the four campuses of the University of California which prepare teachers (Berkeley, Davis, Los Angeles, or Santa Barbara)

The largest proportion of the 18,097 credential candidates with out-of-state degrees were graduates of institutions in the central states. Regional representation, by source of degrees, was as follows:

- 7,770 (42.9%) were graduates of colleges or universities located in the central states
- 5,110 (28.3%) were graduates of western institutions
- 2,514 (13.9%) were graduates of institutions in southern states
- 2,501 (13.8%) were graduates of eastern institutions
- 202 (1.1%) were graduates of institutions in possessions or territories of the United States, or in foreign countries

Table 3 lists the accredited California institutions in order of the number of their graduates holding bachelor's degrees who were certificated for public school service in 1953-54.

TABLE 3

NUMBER OF PERSONS CERTIFICATED IN 1953-54 WHO WERE HOLDERS OF
BACHELOR'S DEGREES FROM ACCREDITED CALIFORNIA COLLEGES AND
UNIVERSITIES, BY INSTITUTION

College or University	Number of graduates with bachelor's degrees certificated 1953-54	College or University	Number of graduates with bachelor's degrees certificated 1953-54
University of California, Los Angeles.....	2,709	Claremont College.....	316
University of California, Berkeley.....	2,574	Humboldt State College.....	213
San Jose State College.....	1,992	La Verne College.....	207
University of Southern California.....	1,864	Immaculate Heart College.....	202
San Francisco State College.....	1,550	College of the Holy Names.....	155
University of California, Santa Barbara.....	1,042	California State Polytechnic College.....	142
Fresno State College.....	1,002	Mount Saint Mary's College.....	135
Los Angeles State College.....	955	California College of Arts and Crafts.....	110
San Diego State College.....	765	San Francisco College for Women.....	110
Whittier College.....	725	Chapman College.....	107
College of the Pacific.....	609	University of San Francisco.....	104
Chico State College.....	600	Dominican College.....	99
Stanford University.....	535	Mills College.....	98
University of Redlands.....	510	Pasadena College.....	96
Occidental College.....	504	Pacific Union College.....	69
Long Beach State College.....	484	University of California, Davis..	64
Sacramento State College.....	385	Loyola University.....	50
George Pepperdine College.....	371	La Sierra College.....	17
		Total.....	21,470

Grouping the figures in Table 3 according to whether the institutions were administered as state colleges, as parts of the state university, or as independently supported institutions shows that 8,088 (37.67%) of the persons certificated in 1953-54 were holders of bachelor's degrees granted by state colleges; 6,993 (32.57%) held degrees from private institutions; and 6,389 (29.76%) held bachelor's degrees from the University of California. The corresponding proportions five years earlier—in 1949-50—were 27.02 per cent from state colleges, 30.13 per cent from the University of California, and 42.85 per cent from private institutions.¹ It seems clear that while the University of California has been supplying about the same proportion of candidates for credentials during this five-year period, the independent institutions have been conferring proportionately (approximately 10 per cent) fewer degrees upon those who teach, and the state colleges have increased their contribution about 10 per cent.

3. Colleges and Universities Attended by Persons Certificated in 1953-54 Who Did Not Hold the Bachelor's Degree

Of the 7,146 persons certificated in 1953-54 who had completed varying amounts of college work without having been granted the bachelor's degree,²

2,786 (38.99%) did not specify where they had attended college

2,015 (28.19%) had attended a California institution not accredited by the State Board of Education for teacher education³

1,699 (23.78%) had attended an out-of-state college or university

646 (9.04%) had attended a California institution accredited for teacher education

TABLE 4

AMOUNT OF COLLEGIATE PREPARATION OF THE PERSONS CERTIFICATED IN 1953-54 WHO DID NOT HOLD THE BACHELOR'S DEGREE

Collegiate preparation	Male	Female	Total
Less than one year.....	266	365	631
One year but less than two....	232	662	894
Two years but less than three..	411	2,815	3,226
Three years but less than four..	221	1,719	1,940
Four years (without AB degree)..	125	330	455
Totals.....	1,255	5,891	7,146

¹ California Legislature, 1950 Regular Session, Seventh Report of the Senate Investigating Committee on Education, *Who Is Training California's Teachers?* Prepared by the Credentials Office Staff of the State Department of Education under the direction of James C. Stone, Consultant in Teacher Education, and Herschel S. Morgan, Credentials Technician. Sacramento 14: Senate of the State of California, March, 1950, p. 11.

² The figure of 7,146 includes 6,691 persons with less than four years of college preparation, and 455 with four years or more.

³ Most of these institutions were California junior colleges, which at the time these data were secured (June 30, 1954) were in the process of being accredited by the Western College Association.

Nearly half (3,226) of these 7,146 persons who did not hold a degree indicated that they had completed at least 2 years, but less than 3 years, of college work. Table 4 shows the varying amounts reported, by sex.

4. *Amount of Graduate Work Completed*

Of the total of 48,576 persons certificated in 1953-54, more than one-half (24,545, or 50.5 per cent) had done graduate study. Of these, approximately one-third (7,914) were holders of one or more graduate degrees (7,257 master's, 657 doctor's), and two-thirds (16,631) had not received a graduate degree.

In the previous fiscal year, 1952-53, the proportion of individuals who had done graduate work was not so large. Of the 42,937 persons certificated in that year, 18,757 (42.3%) had done some graduate study, and a third of these (6,070) had received one or more graduate degrees.

Of the persons certificated in 1953-54 who had done some graduate work,

- 16,631 (67.8%) had done varying amounts of graduate work
- 4,658 (18.9%) had received the master's or doctor's degree
- 3,256 (13.3%) had done additional graduate study beyond the requirements for the master's or doctor's degree

The credential applications of the 19,887 persons who had completed varying amounts of graduate work without receiving a master's or an advanced graduate degree (i.e., the 16,631 without any graduate degree and the 3,256 who had done work beyond the requirements of a graduate degree) were studied to determine how many credit hours of graduate work they had completed. The results are shown in the following tabulation:

- 3,673 (18.5%) had completed 1 to 9 hours of graduate work
- 3,103 (15.6%) had completed 10 to 19 hours
- 3,966 (19.9%) had completed 20 to 29 hours
- 3,820 (19.2%) had completed 30 to 39 hours
- 1,275 (6.4%) had completed 40 to 49 hours
- 634 (3.3%) had completed 50 to 59 hours
- 343 (1.7%) had completed 60 to 69 hours
- 165 (0.8%) had completed 70 to 79 hours
- 66 (0.3%) had completed 80 to 89 hours
- 106 (0.5%) had completed 90 to 99 hours
- 2,736 (13.82%) had completed an unestimated number of hours

5. *Location of Colleges and Universities in Which Graduate Work Was Done*

The graduate work reported by 6,735 (27.44%) of the 24,545 persons certificated in 1953-54 was done in out-of-state colleges or universities. A total of 15,179 persons completed their graduate work in California institutions, 3,367 of these reported completion of units in various institutions so distributed that no single college or university could be considered responsible for their graduate preparation. The remaining 10.72 per cent (2,631) failed to indicate where their graduate work was done.

6. *Types of California Institutions in Which Graduate Work Was Done*

Of the 11,812 persons certificated in 1953-54 who reported the completion of graduate work entirely, or preponderantly, in a single accredited California college or university,

- 4,801 (40.6%) had completed their graduate work in a private college or university
- 4,189 (35.5%) had completed graduate work in a state college
- 2,822 (23.9%) had completed their graduate work in the state university (University of California at Berkeley, Davis, Los Angeles, or Santa Barbara)

These figures seem to indicate that private institutions are more popular with graduate students than public colleges or universities. However, the figures show only numbers of persons, without reference to the number of units completed and with no implication regarding quality of graduate work or graduate students.

Table 5 lists the accredited California colleges and universities in order of the number of their graduate students who were certificated in 1953-54 for public school service.

7. *Location of Out-of-state Institutions Where Graduate Work Was Done*

The credential application forms filed by the 6,735 persons certificated in 1953-54 who had completed units of graduate work outside of California indicated that this work had been done in institutions located, by geographic regions, as follows:

- 2,436 (36.17%) in the central states
- 1,988 (29.52%) in the western states
- 1,552 (23.04%) in the eastern states
- 629 (9.34%) in the southern states
- 130 (1.93%) in United States territories or possessions or a foreign country

8. *Major-Minor Fields of Preparation*

Information regarding the major fields of preparation was available only from the application forms of 14,757 of the 48,576 persons who were certificated during 1953-54. These 14,757 teachers held, or received during the year, one of the three types of credentials for which a major or minor in a teaching field is a specific requirement, namely, the junior high school, the general secondary, and the junior college credentials.

As their major fields of preparation for teaching, men selected subjects in which special credentials are issued (i.e., physical education, industrial arts, business education), social studies, science, and English. Women selected subjects in which special credentials are issued (homemaking, music, and physical education), English, education, and social studies. The preference of 9,290 men and 5,467 women are shown by number and per cent in Table 6.

In the tabulation of data on major fields of preparation, it was noted that 1,088 of the teachers certificated had completed the requirements

TABLE 5

NUMBER OF PERSONS CERTIFICATED IN 1953-54 WHO HAD COMPLETED GRADUATE UNITS IN A CALIFORNIA COLLEGE OR UNIVERSITY ACCREDITED BY THE STATE BOARD OF EDUCATION FOR TEACHER PREPARATION, BY INSTITUTION

College or University	Number of persons taking graduate work	College or University	Number of persons taking graduate work
University of Southern California.....	2,428	Humboldt State College.....	82
University of California, Berkeley.....	1,531	University of San Francisco.....	79
University of California, Los Angeles.....	1,191	College of the Holy Names.....	59
San Francisco State College.....	955	Immaculate Heart College.....	58
Stanford University.....	800	University of California, Santa Barbara.....	57
San Jose State College.....	672	Mills College.....	52
Los Angeles State College.....	620	University of California, Davis.....	43
Fresno State College.....	468	George Pepperdine College.....	38
Long Beach State College.....	434	Loyola University.....	37
San Diego State College.....	340	Dominican College.....	29
Claremont College.....	321	Mount Saint Mary's College.....	28
Sacramento State College.....	319	California College of Arts and Crafts.....	26
College of the Pacific.....	307	San Francisco College for Women.....	25
Chico State College.....	202	La Verne College.....	19
University of Redlands.....	179	Pasadena College.....	19
Whittier College.....	161	Pacific Union College.....	6
Occidental College.....	126	Chapman College.....	3
California State Polytechnic College.....	97	La Sierra College.....	1
		Total.....	11,812

TABLE 6

**MAJOR FIELDS OF PREPARATION OF PERSONS CERTIFICATED IN 1953-54
WHO HELD OR WERE GRANTED JUNIOR HIGH SCHOOL, GENERAL
SECONDARY, OR JUNIOR COLLEGE CREDENTIALS**

Fields of preparation	Men	Per cent	Women	Per cent	Total	Per cent
Special subject fields.....	2,770	29.82	1,467	26.83	4,237	28.71
Social studies.....	2,268	24.41	875	16.01	3,143	21.30
English.....	1,040	11.19	1,306	23.89	2,346	15.90
Science.....	884	9.52	279	5.10	1,163	7.88
Foreign languages.....	250	2.69	436	7.98	686	4.65
Mathematics.....	341	3.67	129	2.36	470	3.18
Education.....	1,581	17.02	908	16.61	2,489	16.87
Non-teaching and uncommon majors.....	156	1.68	67	1.22	223	1.51
Total.....	9,290	100.00	5,467	100.00	14,757	100.00
Per cent of total.....	62.95		37.05		100.00	

for a second academic major. A third of the men chose social studies for a second major, a fifth of them chose special subjects. A third of the women chose English for a second major; a fourth, social studies; and a fifth, special subjects.

Information on minor fields of preparation was available regarding 14,448 of this group of persons who held or were granted credentials requiring such preparation. Men selected minors in social studies, English, science, and special fields. Women selected English, social studies, foreign languages, and science. No minor fields were reported by 309 persons in this group. The preferences in minor fields of preparation of 9,114 men and 5,335 women are shown, by numbers and per cent, in Table 7.

Double minors in academic fields were indicated by nearly one-third of the group. The difference between men and women in respect to selection of the subject for the second minor were significant only in three fields: science, which was chosen as a second minor by one-third more men than women; foreign languages, chosen by twice as many women as men; and mathematics, by twice as many men as women.

III. NUMBER AND TYPE OF DOCUMENTS ISSUED AND IN FORCE

Number and Type of Documents

To the 48,567 persons certificated during the 1953-54 fiscal year, there were issued a total of 62,634 documents of all types, including 57,417

TABLE 7

MINOR FIELDS OF PREPARATION OF TEACHERS CERTIFICATED IN 1953-54
WHO HELD, OR WERE GRANTED JUNIOR HIGH SCHOOL, GENERAL
SECONDARY, OR JUNIOR COLLEGE CREDENTIALS

Fields of preparation	Men	Per cent	Women	Per cent	Total	Per cent
Social studies.....	3,110	34.12	1,676	31.42	4,786	32.43
English.....	2,109	23.14	1,764	33.07	3,873	26.25
Science.....	1,724	18.92	597	11.19	2,320	15.72
Special subjects.....	1,130	12.40	503	9.43	1,633	11.07
Foreign languages.....	456	5.00	624	11.70	1,080	7.32
Mathematics.....	538	5.90	135	2.53	673	4.56
Education.....	21	.23	15	.28	36	.24
Non-teaching and uncommon minors.....	26	.29	21	.38	47	.32
Total minors.....	9,114	100.00	5,335	100.00	14,448	97.91
No minor given.....	176		132		309	2.09
Total.....	9,290		5,467		14,757	100.00
Per cent of total.....	62.95		37.05		100.00	

credentials and life diplomas and 5,217 child care and lecture permits. This is the highest number of documents ever issued by the California State Board of Education in a single year. It is 12.7 per cent larger than the number (55,573) issued during 1952-53 and 6.2 per cent larger than the total (58,993) for 1950-51, which was the peak number issued in any previous year.

Number and Type of Credentials Issued

The number and the types of credentials issued during the 1953-54 fiscal year are shown in Table 8. A study of the data on which this table is based brings to light the following interesting facts:

- (1) The greatest increases were in the number of regular credentials issued on direct application to the State Board of Education (20%), by the number of emergency credentials (17%), and the number of life diplomas (15%).
- (2) Credentials issued on the basis of institutional recommendations increased 8 per cent over the previous year.
- (3) A breakdown of the credentials issued upon the recommendations of the 36 institutions in California which are accredited by the

State Board of Education to prepare teachers shows that a private institution—the University of Southern California—ranks first, with 654 recommendations, followed by San Francisco State College, with 608; the University of California at Los Angeles, 569; and San Jose State College, 554.

TABLE 8
CREDENTIALS, LIFE DIPLOMAS, AND PERMITS AUTHORIZING PUBLIC
SCHOOL SERVICE ISSUED JULY 1, 1953, TO JUNE 30, 1954

Type of document	Regular credentials		Emergency credentials	Renewal of regular credentials	Life diplomas	Duplicate copies	Permits	Total
	Issued on direct application	Issued on institutional recommendation						
CREDENTIALS IN TEACHING FIELDS:								
Kindergarten-primary.....	477	385	208	670	150	18	--	1,908
Provisional kindergarten-primary.....	162	--	--	52	--	--	--	214
General elementary.....	5,957	2,565	6,702	5,704	1,747	158	--	22,833
Provisional general elementary.....	1,731	--	--	656	--	7	--	2,394
Junior high and elementary.....	--	--	--	10	--	5	--	15
Junior high.....	2,509	48	--	514	148	12	--	3,231
General secondary.....	2,240	1,033	1,839	3,995	1,464	77	--	10,648
Junior college.....	386	24	--	109	37	4	--	560
Exchange teacher.....	25	--	--	--	--	--	--	25
Librarianship.....	113	21	13	54	26	1	--	228
Military science and tactics.....	11	--	--	9	--	--	--	20
Adult education.....	1,982	--	--	314	24	18	--	2,338
Adult education Class D vocational.....	562	--	--	381	8	8	--	959
Adult education, lip reading.....	--	1	--	--	--	--	--	1
Special secondary:								
Aviation.....	3	--	3	1	--	--	--	7
Agricultural, vocational.....	13	30	--	52	23	--	--	118
Agriculture, limited.....	1	8	--	6	2	--	--	17
Art.....	177	124	--	156	32	6	--	495
Business education.....	95	49	43	76	16	2	--	281
Business educ. ltd. vocational.....	6	--	--	7	2	--	--	15
Business subjects, vocational part-time.....	76	--	--	35	2	--	--	113
Homemaking.....	363	65	50	229	63	2	--	772
Industrial arts.....	131	130	48	193	67	1	--	570
Industrial arts, limited.....	24	2	--	44	7	--	--	77
Industrial arts, ltd. pt.-time.....	12	--	--	16	2	--	--	30
Music.....	247	111	72	233	87	11	--	761
Music, limited.....	65	3	--	23	4	--	--	95
Nursing education.....	27	6	25	11	--	--	--	69
Physical education.....	537	227	61	328	102	9	--	1,264
Public safety, driver education.....	139	--	28	34	4	--	--	205
Science basic, to medicine.....	3	--	--	3	--	--	--	6
Speech arts.....	36	14	--	16	6	2	--	74
Speech defects, correction of.....	83	46	13	81	32	2	--	257
Blind.....	3	1	--	1	--	--	--	5
Partially sighted.....	11	1	--	2	1	--	--	15
Deaf.....	17	4	--	12	5	--	--	38
Lip reading.....	34	12	--	26	13	1	--	86
Mentally retarded.....	337	23	367	195	72	2	--	996
Vocational Class A.....	164	--	34	191	58	4	--	451
Vocational Class B.....	7	--	--	4	--	--	--	11
Vocational Class C1.....	8	--	--	10	2	--	--	20
Vocational Class C2.....	1	--	--	--	1	--	--	2
Total (special secondary).....	2,620	856	744	1,985	603	42	--	6,850
Special junior high and elementary.....	--	--	--	--	--	1	--	1
TOTAL (in teaching fields).....	18,775	4,933	9,506	14,453	4,207	351	--	52,225

TABLE 8—Continued

**CREDENTIALS, LIFE DIPLOMAS, AND PERMITS AUTHORIZING PUBLIC
SCHOOL SERVICE ISSUED JULY 1, 1953, TO JUNE 30, 1954**

Type of document	Regular credentials		Emergency credentials	Renewal of regular credentials	Life diplomas	Duplicate copies	Permits	Total
	Issued on direct application	Issued on institutional recommendation						
CREDENTIALS IN NONTEACHING FIELDS:								
General administration.....	276	54	--	227	89	2	--	648
Secondary administration.....	241	209	--	271	85	8	--	814
Elementary administration.....	419	398	17	312	157	8	--	1,311
Secondary administration in trade and industrial education.....	9	--	3	1	3	--	--	16
Secondary supervision.....	22	18	--	15	6	--	--	61
Elementary supervision.....	91	41	--	42	15	2	--	191
Special subject supervision.....	82	8	--	54	19	1	--	164
Vocational supervision.....	9	--	--	3	7	--	--	19
General supervision.....	5	4	--	3	2	--	--	14
Health and development:								
School nurse.....	246	--	498	139	89	4	--	976
School physician.....	123	--	42	54	5	--	--	224
Others.....	45	--	25	19	--	--	--	89
Child welfare and supervision of attendance.....	52	10	67	43	18	--	--	190
School psychologist.....	80	17	--	52	12	--	--	161
School psychometrist.....	150	79	--	78	6	1	--	314
TOTAL (in nonteaching fields).....	1,850	838	652	1,313	512	26	--	5,192
PERMITS								
Child care.....	--	--	--	--	--	--	3,180	3,180
Lecture.....	--	--	--	--	--	--	2,037	2,037
GRAND TOTAL.....	20,625	5,771	10,158	15,766	4,720	377	5,217	62,634
Total for same period last year.....	17,119	5,349	8,710	14,784	4,060	354	5,197	55,573
Increase or decrease over last year—								
Amount.....	+3,506	+422	+1,448	+982	+660	+23	+20	+7,061
Per cent.....	+20.48	+7.89	+16.62	+6.64	+15.26	+6.50	+1.38	+12.71

In the preparation of school administrators, the University of Southern California recommended twice as many credentials as its nearest competitor, San Francisco State College, three times as many as Los Angeles State College and Claremont Graduate School, and seven times as many as either San Diego State College, Long Beach State College, College of Pacific, Stanford University, or the University of California at Berkeley. In terms of the number of persons prepared as school administrators, it appears that the private institutions prepared a majority (338, or 51.13%) of those who qualified for school administration credentials on institutional recommendation, followed by the state colleges (281, or 42.52%). The University of California recommended only 42 such persons (6.35%).

Table 9 shows by types of credentials and methods of issuance the valid documents held by the 48,567 persons who were certificated in the fiscal year 1953-54.

While complete answers were not available from the information on file for all of the 48,576 persons certificated in 1953-54 to such questions

TABLE 9
VALID CREDENTIALS AND LIFE DIPLOMAS HELD BY PERSONS
CERTIFICATED IN THE 1953-54 FISCAL YEAR

Type of document	Regular credentials		Renewal of regular credentials	Life diplomas	Duplicate copies	Total
	Issued on direct application	Issued on institutional recommendation				
CREDENTIALS IN TEACHING FIELDS:						
Kindergarten-primary.....	336	173	77	29	9	624
Provisional kindergarten-primary.....	83	--	24	--	1	108
General elementary.....	3,082	1,382	1,317	480	60	6,321
Provisional general elementary.....	757	--	515	--	4	1,276
Junior high and elementary.....	--	34	14	27	1	76
Junior high.....	849	126	335	101	7	1,418
General secondary.....	2,444	600	1,156	433	47	4,680
Junior college.....	139	25	36	9	1	210
Exchange teacher.....	1	--	--	--	--	1
Librarianship.....	27	16	13	5	--	61
Military science and tactics.....	5	--	3	--	1	9
Adult education.....	878	--	162	6	8	1,054
Adult education, Class D vocational.....	263	--	167	4	--	434
Special secondary:						
Aviation.....	2	--	1	--	--	3
Agriculture, vocational.....	11	42	26	9	--	88
Agriculture, limited.....	4	4	5	2	--	15
Art.....	72	120	72	15	3	282
Business education.....	49	53	44	17	1	164
Business educ. ltd. vocational.....	7	--	10	2	--	19
Business subjects, vocational pt-time.....	25	--	20	--	--	45
Homemaking.....	133	56	80	18	3	290
Industrial arts.....	69	151	139	31	3	393
Industrial arts, ltd.....	24	6	42	4	--	76
Industrial arts, ltd. pt-time.....	7	--	8	--	--	15
Music.....	121	120	147	46	3	437
Music, Limited.....	23	1	10	6	--	40
Nursing education.....	12	1	--	--	--	13
Physical education.....	214	287	246	69	2	818
Public safety, driver education.....	64	--	13	3	1	81
Speech arts.....	12	10	16	4	--	42
Speech defects, Correction of.....	49	33	40	11	1	134
Blind.....	--	3	--	--	--	3
Partially sighted.....	1	1	--	1	--	3
Deaf.....	7	4	5	1	--	17
Lip reading.....	31	12	11	3	--	57
Mentally retarded.....	239	19	72	8	2	340
Vocational Class A.....	102	--	204	44	3	353
Vocational Class B.....	2	--	4	--	--	6
Vocational Class C1.....	12	--	11	1	--	24
Vocational Class C2.....	--	--	1	--	--	1
Total (Special secondary).....	1,292	923	1,227	295	22	3,759
Special junior high and elementary.....	--	1	--	3	--	4
TOTAL (in teaching fields).....	10,156	3,280	5,046	1,392	161	20,035

TABLE 9—Continued
VALID CREDENTIALS AND LIFE DIPLOMAS HELD BY PERSONS
CERTIFICATED IN THE 1953-54 FISCAL YEAR

Type of document	Regular credentials		Renewal of regular credentials	Life diplomas	Duplicate copies	Total
	Issued on direct application	Issued on institutional recommendation				
CREDENTIALS IN NONTEACHING FIELDS:						
General administration.....	148	63	71	6	1	289
Secondary administration.....	148	90	83	22	1	344
Elementary administration.....	214	166	139	38	2	559
Secondary administration in trade and industrial education.....	6	--	1	1	--	8
Secondary supervision.....	6	8	6	2	--	22
Elementary supervision.....	56	27	10	4	--	97
Departmental supervision.....	--	--	--	2	--	2
Special subject supervision.....	75	10	28	6	--	119
Vocational supervision.....	12	--	3	4	--	19
General supervision.....	--	2	1	--	--	3
Health and development:						
School nurse.....	116	--	27	8	2	153
School physician.....	37	--	--	--	--	37
Others.....	13	--	6	1	1	21
Child welfare and supervision of attendance.....	34	13	23	7	1	78
School psychologist.....	57	7	15	--	--	79
School psychometrist.....	105	47	46	--	--	198
TOTAL (in nonteaching fields) ..	1,027	433	459	101	8	2,028
GRAND TOTAL.....	11,183	3,713	5,505	1,493	169	22,063

as "When did you begin teaching?" "Where did you begin teaching?" etc., the data available were sufficiently diverse and inclusive to permit some generalizations regarding the experience of these persons:

One-fourth reported that they began teaching between the years 1950 and 1954; slightly less than one-fourth reported having commenced teaching in the period 1940-1944.

A majority (60%) indicated the elementary grades as the level of their teaching experience.

One-half stated that they began teaching in California, and one-fourth in the central states. The fact that half of these teachers began teaching in California, and that of this half, nearly all gave 1950-54 as the period of their first teaching, indicates that a substantial portion of the persons certificated during the year were "newcomers" to teaching in California.

While half of those certificated indicated that they had a year or more of teaching service in California prior to 1954, only 6 per cent indicated they were "returnees," i.e., teachers who had returned to teaching service after having given it up for a year or longer. Two-thirds of the returnees were elementary teachers.

Number and Types of Credentials in Force

A total of 22,063 valid credentials and life diplomas were held by the 48,567 persons at the time they received the 57,417 credentials and life diplomas issued during the 1953-54 fiscal year. The most commonly held document was a regular general elementary credential; the next most commonly held document was a regular general secondary credential. The average number of credentials and life diplomas held per person was 1.8. During the 1952-53 fiscal year the average number held per person was 1.6; during 1951-52, it was also 1.6.

Table 10 shows the number of credentials and life diplomas held by and issued to the 48,576 persons certificated during the 1953-54 fiscal year. The range in the number of documents held by individuals was from 1 to 12, while in the 1952-53 fiscal year the range was from 1 to 11. The 12 credentials held by one teacher in 1953-54 were a general elementary, general secondary, elementary supervision, secondary supervision, elementary administration, secondary administration, general administration, child welfare and supervision of attendance, junior college, special secondary for teaching the mentally retarded, school psychometrist, and school psychologist.

TABLE 10
NUMBER OF TEACHERS RECEIVING CERTIFICATION DOCUMENTS FOR PUBLIC SCHOOL SERVICE, 1953-54, ACCORDING TO NUMBER OF VALID DOCUMENTS HELD BY EACH TEACHER

Number of valid documents held by individual teacher	Teachers certificated in 1953-54	Total number of valid documents held by these teachers in 1953-54
1-----	26,062	26,062
2-----	14,805	29,610
3-----	3,919	11,757
4-----	2,199	8,796
5-----	766	3,830
6-----	473	2,838
7-----	193	1,351
8-----	97	776
9-----	39	351
10-----	18	180
11-----	4	44
12-----	1	12
Total teachers ..	48,576	
Total valid certification documents held by these teachers ----		85,607

FIRST PERIOD APPORTIONMENT FOR GROWTH

RALPH R. BOYDEN, *Chief, Bureau of School Apportionments and Reports*

The First Period Apportionment for Growth in regular day schools was certified by the Superintendent of Public Instruction to the State Controller on February 15, 1955, in the amount of \$10,600,300.80. This apportionment, and a similar one scheduled to be made just before the close of the fiscal year, were designed and authorized by law to provide state assistance to those school districts of the state which today, as well as in recent years, experience severe financial problems due to the rapidly increasing numbers of pupils in attendance.

The First Period Apportionment for 1954-55 is based upon growth in the average attendance in regular day schools in each district during the full school months of the current fiscal year, ending not later than December 31, 1954, over the average attendance of the corresponding period of the preceding fiscal year.

A comparison of the First Period Apportionment for Growth in 1954-55 with the First and Second Period Apportionments for Growth made during each of the past three fiscal years is shown in Table 1.

Growth in average attendance, as shown in Table 1, represents total growth in those districts which reported growth and which received allowances for growth, in comparison with the average attendance of the corresponding periods of the preceding fiscal year. Loss in attendance in the districts which experienced a loss, and the gains or loss in attendance in certain districts which did not receive an allowance, have not been included.

The total amount apportioned for elementary, high school, and junior college levels for each county as the Principal Apportionment, September 15, 1954, together with the amount apportioned for each county as an Apportionment for Growth, February 15, 1955, is shown in Table 2. Column 5 of this table shows the percentage relationship between the First Period Apportionment for Growth and the Principal Apportionment. This percentage is an approximate measure of the severity of the problem of growth in the several counties.

As shown in Table 2, allowances for growth were made to districts in all but two counties, Alpine and Plumas. No allowances for growth were made for small elementary school districts (under 101 a.d.a.) unless growth placed them in a higher attendance bracket and the appropriate number of required additional teachers were hired. This pattern was added to the apportionment law by the 1953 session of the Legislature, and has resulted this year and last year in considerable decreases in the number of districts receiving apportionment for growth for elementary

schools from the numbers which receive such apportionments during the two preceding fiscal years.

The growth in average attendance this year over last year at the elementary-school and high-school levels was comparable to, although slightly less in each case than, the growth a year ago over the preceding year. At the junior college level, however, the growth in average attendance this year over last year, approximately 21,000 units, was nearly three times the growth last year over the preceding year, approximately 7,000. This trend, anticipated by those familiar with the situation, is evidence of the overcrowded conditions in most of the institutions of higher education currently receiving attention by the Legislature and others responsible for the administration of the Junior colleges, colleges, and universities.

TABLE 1

SUMMARY OF GROWTH IN AVERAGE ATTENDANCE AND AMOUNTS APPORTIONED, 1954-55, AND COMPARATIVE FIGURES OF 1953-54, 1952-53, AND 1951-52

Fiscal year and level of attendance	First period (February)			Second period (June)			Total amount apportioned (Col. 4 plus Col. 7)
	Number of districts	Growth in average attendance	Amount apportioned	Number of districts	Growth in average attendance	Amount apportioned	
1	2	3	4	5	6	7	8
Fiscal year 1954-55							
Elementary school..	816	122,785	\$7,630,941.31				
High school.....	279	34,121	1,901,114.79				
Junior college.....	51	21,248	1,068,244.70				
Total.....	1,146	178,154	\$10,600,300.80				
Fiscal year 1953-54							
Elementary school..	788	131,438	\$7,421,163.66	800	129,448	\$11,304,142.36	\$18,725,306.02
High school.....	279	35,355	1,803,404.96	272	36,378	2,807,267.51	4,610,672.47
Junior college.....	39	7,331	327,833.79	49	10,963	782,215.72	1,110,049.51
Total.....	1,106	174,124	\$9,552,402.41	1,121	176,789	\$14,893,625.59	\$24,446,028.00
Fiscal year 1952-53							
Elementary school..	1,092	111,395	\$5,247,742.14	1,084	116,166	\$9,923,623.77	\$15,171,365.91
High school.....	264	26,278	1,164,320.47	262	24,300	1,972,955.13	3,137,275.60
Junior college.....	44	6,029	250,625.96	36	4,102	307,729.88	558,355.84
Total.....	1,400	143,702	\$6,662,688.57	1,382	144,568	\$12,204,308.78	\$18,866,997.35
Fiscal year 1951-52							
Elementary school..	1,099	120,011	\$5,221,876.08	1,144	113,736	\$6,940,695.52	\$12,162,571.60
High school.....	234	17,212	807,961.88	242	19,156	1,241,308.81	2,049,270.69
Junior college.....	7	444	16,369.68	10	804	44,872.35	61,242.03
Total.....	1,340	137,667	\$6,046,207.64	1,396	133,696	\$8,226,876.68	\$14,273,084.32

TABLE 2
FIRST PERIOD APPORTIONMENT FOR GROWTH AND
PRINCIPAL APPORTIONMENT, 1954-55, BY COUNTIES

Co. No.	County	Principal Apportionment September 15, 1954	First Period Apportionment for Growth February 15, 1955	
			Amount	Per cent of Principal Apportion- ment
1	2	3	4	5
1	Alameda.....	\$22,153,825.11	\$578,873.85	2.61
2	Alpine.....	10,755.00		
3	Amador.....	458,972.40	2,974.87	0.65
4	Butte.....	2,656,076.46	61,346.44	2.31
5	Calaveras.....	378,338.29	4,350.85	1.15
6	Colusa.....	394,591.42	8,119.11	2.06
7	Contra Costa.....	13,791,197.55	397,831.83	2.88
8	Del Norte.....	463,926.05	25,134.90	5.42
9	El Dorado.....	612,566.73	10,633.74	1.74
10	Fresno.....	11,992,315.79	368,899.49	3.08
11	Glenn.....	608,776.57	12,189.97	2.00
12	Humboldt.....	3,649,633.60	131,639.31	3.61
13	Imperial.....	3,003,484.06	41,890.10	1.39
14	Inyo.....	447,881.07	8,574.07	1.91
15	Kern.....	9,599,425.82	220,082.18	2.29
16	Kings.....	1,781,857.77	55,118.99	1.97
17	Lake.....	465,982.17	6,385.80	1.37
18	Lassen.....	894,168.97	9,415.49	1.05
19	Los Angeles.....	124,246,660.97	3,668,564.23	2.95
20	Madera.....	1,650,120.85	26,176.54	1.59
21	Marin.....	3,245,978.35	109,777.29	3.38
22	Mariposa.....	182,564.28	2,611.45	1.43
23	Mendocino.....	2,009,481.71	63,819.50	3.18
24	Merced.....	2,984,236.00	60,135.92	2.02
25	Modoc.....	353,452.38	6,727.91	1.90
26	Mono.....	66,354.16	184.52	0.28
27	Monterey.....	4,222,654.09	115,759.87	2.74
28	Napa.....	1,522,694.61	59,454.23	3.90
29	Nevada.....	587,344.11	8,864.77	1.51
30	Orange.....	8,935,745.61	612,014.23	6.85
31	Placer.....	1,652,892.66	51,000.55	3.09
32	Plumas.....	355,308.00		
33	Riverside.....	6,351,564.81	179,447.50	2.83
34	Sacramento.....	11,763,889.52	428,110.54	3.64
35	San Benito.....	424,011.79	8,201.11	1.93
36	San Bernardino.....	13,513,160.23	431,445.75	3.19
37	San Diego.....	19,406,468.93	615,517.97	3.17
38	San Francisco.....	10,204,482.08	145,005.75	1.42
39	San Joaquin.....	7,188,045.16	140,742.34	1.96
40	San Luis Obispo.....	2,280,688.46	29,007.71	1.27
41	San Mateo.....	8,745,221.23	422,183.39	4.83
42	Santa Barbara.....	2,779,018.27	68,115.50	2.45
43	Santa Clara.....	11,396,971.42	537,246.47	4.71
44	Santa Cruz.....	1,653,558.59	43,994.92	2.66
45	Shasta.....	1,959,832.99	56,823.00	2.90
46	Sierra.....	191,043.52	8,095.13	4.24
47	Siskiyou.....	1,431,592.62	30,005.67	2.10
48	Solano.....	4,180,197.99	65,493.29	1.57
49	Sonoma.....	3,968,458.93	141,127.54	3.56
50	Stanislaus.....	6,173,275.02	133,275.80	2.16
51	Sutter.....	1,078,381.50	20,505.41	1.90
52	Tehama.....	779,825.13	14,484.26	1.86
53	Trinity.....	228,261.16	8,304.07	3.64
54	Tulare.....	6,567,518.13	109,538.08	1.67
55	Tuolumne.....	487,199.70	4,047.27	0.83
56	Ventura.....	4,368,503.18	151,018.10	3.46
57	Yolo.....	1,587,049.31	69,462.85	4.38
58	Yuba.....	1,165,924.96	30,549.38	2.62
	Total.....	\$355,253,407.24	\$10,600,300.80	2.98

The amount reserved for the First Period Apportionment for Growth (40 per cent of \$12 times last year's total a.d.a.) was inadequate to meet the total of the computed allowances for all districts. A Correction Factor was necessary, reducing computed allowances by approximately 1.5 per cent.

Various factors influencing the choice of opening date of school, and the fact that school months, of four weeks each, always begin on Monday and end on Friday, have resulted for many districts this year in a longer First Period, in terms of teaching days and complete school months, than was the case last year. It is hoped that the deficit in the sum available for the First Period Apportionment for Growth (resulting from the fact that only a fixed proportion of the sum to provide for growth is reserved by law for this period, regardless of shifts in the school calendar), will be offset by the relatively shorter length of the Second Period so that there will be a correspondingly lighter deficit at the end of the present school year than would otherwise occur.¹

The total of the apportionments from the State School Fund for the fiscal year to date is \$381,607,745.38. There remains a balance of \$16,603,204.11 scheduled for apportionment in June. Of this total, \$15,900,451.20 is reserved for the Second Period Apportionment for Growth. There is also an amount of \$702,752.91 remaining from amounts reserved for the Principal Apportionment, last September, or the Special Purpose Apportionment, December, which will be apportioned in June as a Final Apportionment together with the amount, if any, remaining unused from the amount reserved for the Second Period Apportionment for Growth. The Final Apportionment will be prorated to the elementary school districts receiving state equalization aid in proportion to their a.d.a. during the preceding fiscal year. The Final Apportionment last year amounted to approximately 44 cents per unit of a.d.a. and the indications this year are that it will amount to approximately 47 cents per unit of a.d.a.

¹ Last year (1953-54) the deficit for the Second Period Apportionment for Growth was 19.5 per cent.

CALIFORNIA CONFERENCE ON PHYSICIANS AND SCHOOLS

PATRICIA HILL, *Consultant in School Health Education*

The first California Conference on Physicians and Schools was held in Fresno, November 12-13, 1954, with more than 250 members of the educational, public health, and medical professions participating. The purpose of the conference was to develop means by which the three professions can more closely co-ordinate efforts toward improving the protection of the health of California's school children. The conference was sponsored by the California Medical Association in co-operation with the State Departments of Education and Public Health.

Four national conferences on Physicians and Schools have been held in recent years and the California conference is an outgrowth of these conferences. Representatives of local school districts and the sponsoring agencies who have attended one or more of the national conferences served on the planning committee for the California conference. As the national conferences have served as a stimulus for state conferences, it is hoped that the state conference will motivate personnel in local schools, public health departments, and medical societies to plan similar conferences on a regional level.

Superintendent of Public Instruction Roy E. Simpson, in his welcoming address to the participants at the California conference, pointed out that educators, public health personnel, and physicians in private practice are all working with the same families. He stated further "that the health of California's school children plays a major role in the total educational program. The modern school deals with physical, mental, emotional, and social development of each pupil. As child health is improved, other aspects of school endeavor are more successful. To learn effectively, children need good health." Dr. Simpson emphasized that school health programs are not conducted in a vacuum but are carried on in communities in which many individuals and agencies are vitally concerned with child health, and stated that "parents, physicians and dentists, health personnel serving the schools, the administrative and teaching staffs of schools, and members of various community agencies all have important responsibilities in maintaining and promoting the health and welfare of the school-age child." "I believe," said Dr. Simpson, "it is an important step forward to sit down together as we are doing at this conference to work out an inter-professional approach to some of our mutual problems."

Orientation to the conference was given by Fred V. Hein, Ph.D., Consultant in Health and Fitness, Bureau of Health Education, American

Medical Association, in a discussion of the "Scope of School Health." In opening his talk Dr. Hein stated that many people ask the question—"Why should the schools have a health program?" He presented the following answers to such a question:

1. Some children come to school with health problems that interfere with their ability to learn effectively. Methods to discover such blocks to learning and to encourage correction to bring about adjustment to them are essential.
2. In even the best organized schools a certain amount of sudden illness and some accidents are bound to occur. This makes procedures for dealing with emergencies, including large-scale disasters, a practical necessity.
3. Communicable disease is likely to spread readily among children gathered together in the close proximity of the school room. This obligates the school to institute and practice appropriate preventive and control measures.
4. During the school year children are compelled by law to spend several hours a day within the school and its environs. This, in turn, places a responsibility upon the school to provide a safe and healthful environment—mental and emotional as well as physical.
5. The school years present a unique opportunity for health education; tomorrow's citizens are grouped in an instructional situation during the formative period of their lives. Unless a golden opportunity is to be lost this demands well-designed and progressive health education throughout the school grades.

To meet the needs stated or implied in the foregoing answers, Dr. Hein stated that "a carefully developed three-point health program, including health services, healthful school living, and health education, is required." He described each phase and pointed out that the providing of such a program is too big a job for any one group, as it requires a great variety of professional experience and training.

In stressing the need for co-operation between schools and physicians, Dr. Hein stated, "There must be mutual respect for the skills and abilities of each profession. For example, the educator turns to the physician for guidance on the medical phases of school health, but remains secure in the knowledge that its educational aspects are equally important. On the other hand the physician recognizes the value of educational 'know-how' and realizes that the contributions of both professions are essential to any worth-while program of school health."

Following the opening session, the participants grouped themselves into eight sections for discussion of the following specific topics: Communicable Disease; Health Guidance and Physical Education; Emotional Problems of Growing Children; Environmental Aspects of School Health; Children With Special Health Problems; Personal Physician and School Health; School Physician and School Health; and Emergency Care. Membership in each section was composed of school administrators, teachers, school physicians, school nurses, physicians and dentists in private practice, professional personnel from local health departments, and representatives from the state departments of Education and Public Health. Highlights of the discussion and the recommendations made by each group are given in the following pages.¹

¹ Printed copies of the complete report of the First California Conference on Physicians and Schools may be obtained upon request addressed to the California Medical Association, 450 Sutter Street, San Francisco 8, California.

REPORTS OF DISCUSSION GROUPS

Group I—*Communicable Disease*

Members of Group I agreed that the objective in control of communicable disease is "the maximum application of existing knowledge for the conservation of optimal health and well-being of the school-age child and for the prevention of illness, disability, and death from communicable disease." This group urged that all children be immunized by their family physicians early in life and prior to entering school. They felt that the school has a definite role in the interpretation of the need for adequate immunization, in encouraging parents to have their children protected before entering school, and in maintaining an adequate level of immunization in the entire community. Members of the group agreed that immunizations and vaccines should be administered, preferably, by physicians in their offices or by the community medical facilities rather than in school immunization programs.

The discussion group made the following specific recommendations:

1. There should be a continuing review, by appropriate persons, of the Health and Safety Code, Education Code, State regulations, and local ordinances and regulations to keep communicable disease aspects up-to-date.
2. Up-to-date information should be utilized and attitudes developed which will encourage desirable practices concerning "minor" illnesses such as colds, "flu," etc.
3. Medical and allied resources should continue to re-examine policies and practices in light of newer knowledge, and changes in these should be made accordingly. Sound, *flexible* policies should be formulated on the basis of current scientific facts, *local* attitudes and situation. These policies should be formulated by those individuals and groups concerned.

Group II—*Health Guidance and Physical Education*

For the purpose of discussion, the group accepted the following definitions: (1) "Health guidance" involves all measures from all persons giving instruction or services for health, including physicians, school physicians, school nurses, classroom teachers, school administrators, physical education teachers, parents, personnel from voluntary health agencies, and any others who may have contact with the child; (2) "Physical education" is a way of education through and of the physical and its purposes are in harmony with other areas of education.

Group discussion centered around the purposes of physical education, the type of program needed to achieve these purposes, and the need for co-operative planning by all personnel involved in health guidance. Following is a condensation of the recommendations made by members of Group II:

1. There should be a greater emphasis on health guidance and physical education in the elementary grades because these are the most formative years. . . .
2. The physical education program in secondary level should include various types of activities adjusted to individual needs. Athletics should be included in the program with necessary safeguards to insure benefits in participation

for all girls and boys. Community pressures for winning teams need to be changed to support an all-around program.

3. Qualified personnel (persons with a professional degree in the field in which they are working, from a recognized accredited institution) should be actively concerned with programs of competition that are being developed in the communities. The standards that have been set up by national committees and which have been approved and accepted by national and local educational groups should be the basic standards used in all instances. . . .
4. The size of physical education classes should be comparable to those in other areas if the physical educator is to make his contribution to the health education guidance program.
5. A school health committee with representation from all health guidance groups should be set up on a local level and services from each of these groups should be available for each of the other groups. . . .
6. Cumulative records are essential if health guidance programs are to meet the needs of boys and girls. . . . It was suggested that a narrative type of record is desirable. . . . The record must be good to be used and be used to be good.
7. It is essential that all health guidance personnel have adequate professional preparation for specific roles on the health guidance team and each be willing to work with other groups. Each group should have knowledge concerning the work of other groups. For example, physicians should know the nature of the physical education program, as this would influence granting of physical education excuses.
8. The school administrator, because of his key position in the health guidance program, needs to have the interest in and the knowledge of the health needs of students.
9. Teacher-education institutions should include more health education in the professional preparation of all teachers and administrators.
10. Health services in schools should be under the direct administrative control of physicians who have special preparation in school health administration and, lacking availability of such personnel, school administrators should seek the help of the local medical society in setting up policies for school health practices applicable to local situation.
11. Local medical societies have an obligation to exert positive leadership in the development of good school health programs in the schools of their geographic areas. Since the local school administrator is responsible for all activities within his school, such leadership should be exerted at the top administrative level, seeking a co-operative approach through joint committees with representation from the medical professions, public health, physical education and others interested in the health of the school child.
12. Graduate education for physicians participating in school health guidance programs should be encouraged.
13. The curriculum planning committee of medical schools should give consideration for the inclusion of appropriate amounts of time for instruction in the role of the physician in health programs for school-age children.

Group III—Environmental Aspects of School Health

The members of the group agreed that the term "healthful environment," applies to all the external factors that affect the health of the school child while he is under the jurisdiction of the school. The group also agreed that the purposes of creating or promoting healthful environment are to improve health and healthful living of those in the school; to further health education; to improve home conditions through learning experiences at school; to provide healthful relationships between all persons involved in the school program; to provide a setting for good instruction. The group discussed the responsibilities and services of

various individuals and agencies in providing and maintaining a healthful environment, considering both legal and nonlegal responsibilities. Members of the group made the following recommendations:

1. That studies or surveys be made in view of the changing architectural plans to determine what effects they have on the emotional-physical life of the child.
2. In view of the overcrowded conditions of many of our schools, that we work toward smaller-sized classes with properly trained teachers and ancillary personnel.
3. That efforts be directed toward obtaining adequate facilities for improving the environment of the school health program.
4. In order to attain adequate health environment for school children, that all health services in the community be called upon as fully as possible.
5. That a clear method of communication between the school and the physician be devised.
6. Through his county and state organizations, the doctor and the dentist should support programs for improving a healthful and beneficial environment for the child.

Group IV—*Emotional Problems of Growing Children*

Members of Group IV assumed at the outset of their discussion that health is a primary objective of modern education and that mental health is an integral part of health. Mental health was described, for the purpose of discussion, as a condition that manifests itself in school children in at least the following three ways: *First*, the mentally healthy child displays an emotional development which is commensurate with his physical and intellectual age, if not his chronological age. *Second*, he makes use of, and is developing, his capacities to the greatest degree. *Third*, he is able to carry on a satisfying and constructive relationship with his peers.

In the opinion of the group, a clear-cut division between mentally healthy and mentally unhealthy children cannot be made. All children, in growing up, have emotional and social problems, and the schools must provide an emotional atmosphere which is conducive to the normal emotional and social development of all children. The first step in providing such an atmosphere, the group agreed, depends upon the selection and training of teachers and school administrators who are healthy, emotionally mature, and who understand the emotional and social needs of children as well as their educational needs.

Considerable time was spent in discussing how the various professional people concerned with childhood health can learn to work together. Included in these professional roles were not only the family physician, the public health officer, and the educator, but also the nurse, the psychologist, the psychiatric social worker, and the psychiatrist. Participants stressed communication as an exceedingly vital factor in the solution of children's emotional problems.

Members of Group IV made the following recommendation:

In each sufficiently large school district, and through the county school offices with regard to smaller districts, advisory health committees should be set up,

with representatives from such agencies as: County Medical Society, County Dental Society, Public Health Department, Voluntary Health Agencies, Social Agencies, and Nurses Association. These committees should be formed at the invitation of the school, with representatives appointed by the respective agencies, and should be concerned with both the mental and physical health of children.

Group V—Children with Special Health Problems

Members of Group V agreed on the following basic premise applicable to children with special health problems: Wherever possible, the experiences common to normal children should be utilized in the education of the handicapped child. Thus, the common characteristics would be capitalized, rather than the idiosyncrasies of the handicapped. Members of the group felt that one of the most important steps in complying with the premise is early casefinding of children with special health problems, in which co-operation of the personal physician and pediatrician seem essential. They also felt there should be greater utilization of existing casefinding procedures of school and health departments, and improved channels of communication between private physicians and community agencies.

Accurate appraisal of the child's status should enable the teacher to utilize the correct teaching procedures. Members of Group V also felt that education of parents toward acceptance and understanding of the particular health needs of their child is important in the development of better school health programs for children with special health problems. The group made the following recommendations:

1. That the general health of the child under treatment for a physical handicap be considered important and that this child receive continued supervision from the family physician or pediatrician as a co-ordinator.
2. That there be established minimum requirements for facilities and services for handicapped children on a county level.
3. That conferences similar to this be held on a local or regional basis.
4. That more education and guidance be provided for parents toward their acceptance and understanding of the particular health needs of their children.

Group VI—Personal Physician and School Health

The role of the personal physician and his county medical society in making effective a sound school health program cannot be overemphasized, according to members of Group VI. However, the discussion indicated that more education, regional and local, is needed before the active co-operation and assistance of the physicians can be assured. Participants felt that it was important that the objectives of school health be explained to the personal physician and suggested that this might be accomplished through discussion in county medical society meetings and through articles in society bulletins.

It was generally agreed that county medical societies should organize a program of physical examinations by private physicians. The suggested program would include use of a written form, worked out locally; ex-

amination of the children entering kindergarten, and possibly the sixth and ninth grades; a more detailed examination for children participating in competitive athletics; and co-operation between medical societies and doctors in offering reduced rates for preschool examination. It was also suggested that the county medical society be the liaison between doctor and health department. The following specific recommendations were made by this group:

1. That a health examination, including chest x-ray and pertinent laboratory work, of both certificated and noncertificated personnel of schools in California be required and that it be set up periodically during the term of employment, regardless of tenure status.
2. That the appropriate authorities be requested to remove the requirement of two years' experience from the physicians' and dentists' Health and Development Credential.
3. That immunization and physical examinations be divorced from the schools and put back in the doctor's office.
4. That it be recommended to the California Medical Association and the public health profession of the State of California that preventive services be developed in general hospitals for the purpose of providing these services to the indigent part of the population and for the purpose of training young physicians.
5. That dental departments be established in county hospitals, and that these departments be used exclusively for preventive dentistry and the treatment of dental caries for preschool and school age children.
6. That there be formed in each county medical society a school health committee, composed of physicians, that will work with other interested persons in solving the problems of the school health programs; and that the California Medical Association have a permanent staff person qualified in school health to assist such committees.
7. Due to the time element, it was felt that numerous items of mutual interest failed to be taken into consideration. Therefore, it is recommended that similar conferences be held in the near future on a regional basis.

Group VII—School Physician and School Health

In discussing the role of the school physician, Group VII considered various aspects of the entire school health program and agreed that this program is concerned with maintenance and promotion of the total health of the child in the broadest sense. The discussion which took place is summarized in the group's recommendations which follow:

1. The school health programs should be concerned with maintenance and promotion of the total health of the child in the broadest sense.
2. The school physician has a responsibility to interpret the health problems of school children to parents, teachers, nurses, and others.
3. The school physician should participate in curriculum development wherever medical advice is indicated or needed, as well as serving as supervisor on emergencies and illnesses when policies or standing orders are developed.
4. The school physician has an in-service educational role in helping teachers, nurses, and other health personnel to develop insight and understanding of the health needs of the children.
5. The school physician should assume responsibility for community leadership in stimulating the development of health resources, to meet the needs of children, where these do not exist.
6. The school physician should assume leadership in integrating school and community activities.

7. The school physician should participate on, or stimulate the formation of, community school health councils and identify himself with voluntary health agencies.
8. The school physician should provide liaison between the schools and the county medical society and private physicians.
9. The school physician should serve as medical supervisor of the athletic programs and of school health environment.
10. The school physician has an important role in interpreting the multiplicity of forms and slips sent by the school to private physicians.
11. The school physician should serve as counselor or consultant to the school faculty.
12. Physical examinations, from time to time, are desirable. An examination of a child should do more than find defects; it should provide an opportunity for counseling, guidance, and an appraisal of the child's growth, development, and personality.
13. There should be a study at state and local levels on problems relating to children who are without adequate health supervision.

Group VIII—Emergency Care

For purpose of discussion, members of Group VIII agreed that "emergency care" is the immediate care, such as first aid or exclusion, that is necessitated by accident or illness. This care should be provided in accordance with policies prescribed by school authorities pending assumption of control by parents and treatment by the personal physician, dentist, or other health advisors. Participants stressed the need for each school to have, *in writing*, standard orders and a complete statement of policies to be followed in emergency care. This should be developed by the school administrator, the teacher, the nurse, school physician or county health officer, lay citizens, and representatives of the medical and dental associations. The group stressed that final policies must have medical approval.

Members of the group agreed that in order to give the security which school employees need in order to provide adequate emergency care, governing boards of school districts should obtain blanket liability insurance for all district employees.

Members of the group recommended the following principles for reducing the need for emergency care:

1. There should be a periodic inspection of the entire school plant by qualified people, such as safety engineers, fire and safety insurance personnel, and members of the safety and health committee of the local health council; and also by pupils, parents, teachers, etc.
2. The health and safety curricula of the school must include areas of instruction related to prevention of accidents. Accidents are made, they don't just happen.
3. Teachers should be encouraged to use accident records and reports, accident surveys and other pertinent local information as the basis for classroom instruction in accident prevention.
4. School personnel should give special identification to health cards of individuals who have chronic illnesses to the degree that emergency care may be necessary at some time. Where health records are not immediately available, school authorities should be sure that certain basic health facts are ascertained from parents. The responsibility of parents in this area is paramount.

Group VIII also made the following general recommendations:

1. Accidents, no matter how minor, must have adequate reporting to the proper authority in the school and to the home.
2. A manual of directions for emergency care should be prepared. Listing symptoms rather than disease itself is more useful to the teacher.
3. Each school should have standard orders, in writing, and a complete statement of policies to be followed in emergency care. These policies should include a definite reference to first aid supplies. The orders should be duplicated and placed in the hands of every teacher and be in evidence in the first aid cabinet.
4. That the California Medical Association recommend to the Joint Committee of the State Department of Public Health and the State Department of Education the formulation of guides for the suggested development of local health policies and standing orders to be followed when emergency care is necessary.
5. If possible, teachers and athletic coaches be thoroughly trained in first aid.
6. That there is a grave need to orient and refresh all teachers in emergency care needs.
7. That local administrators promote first aid training by giving points or credits toward salary increments.
8. That teachers should know the state educational code requirements regarding field trips and excursions.
9. That the school secretary or clerk *should not be delegated* to do first aid unless she has had training in emergency care.
10. That governing boards of school districts obtain a blanket liability insurance policy for all district employees.
11. When emergency care has been rendered, the sick or injured child's parents or guardian should be notified at once.
12. The committee closed its work with a final recommendation that (1) because of need for emphasis on study of the total health program, services, instruction, and environment, and (2) because the school principal and/or superintendent is the key person in carrying out of a total school health program, we request the California Medical Association to ask Dr. Roy E. Simpson, Superintendent of Public Instruction of the State of California, to request the California Association of Secondary School Administrators, and the California Elementary School Administrators Association to make "The School Health Program" the theme of their annual conference in the school year, 1954-55.

SUMMARY

In general, participants felt that the first California Conference on Physicians and Schools was successful in stimulating the co-ordination of efforts of educators, public health personnel, and members of the medical profession toward improving the health protection of California's school children. As one school superintendent said, "at last we are getting some action, not just talking to ourselves about the importance of the school health program."

The importance of teamwork among all persons concerned with the health of the school child was stressed in each discussion group. In reference to this teamwork, emphasis was placed on the need for better interpretation of the school health program and the need for improved channels of communication between school, parent, private physician, and dentist, and community agencies.

One of the recommendations of the conference as a whole was that similar conferences be held on a regional level where educators, physicians, and public health personnel could co-operate on the improvement of local health programs for the school age child. The planning of such conferences is at present being considered in several areas of the state.

The tone of the conference was well expressed in the words of one of the participants, who said, "A good school health program, including adequate health services, functional health teaching, and safe and healthful living conditions will do more than improve the health of school children. It will provide the foundation for healthier men and women and a healthier nation in the years to come."

DEPARTMENTAL COMMUNICATIONS

OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION

ROY E. SIMPSON, *Superintendent of Public Instruction*

APPOINTMENTS TO STAFF

LAURENCE L. BELANGER, formerly director of guidance for the office of the Orange County Superintendent of Schools, has been appointed Consultant in Guidance in the Bureau of Guidance, effective February 1, 1955. Dr. Belanger is a graduate of College of the Pacific and completed his doctoral program at Stanford University. During 1954-55 he served the Department of Education as Consultant in Guidance on a temporary appointment while on leave from his position in Orange County. Dr. Belanger has had extensive experience in California schools as teacher, attendance supervisor, counselor, and administrator. He has served as visiting instructor in summer sessions at Montana State College, Oregon State College, and the University of Nevada.

LELAND P. BALDWIN was appointed Regional Supervisor of Business Education in the Bureau of Business Education, effective February 1, 1955, and has been assigned to the north central area of the state. Mr. Baldwin is a graduate of San Francisco State College, where he specialized in education and merchandising and received the M.A. degree in secondary education. His experience includes teaching secretarial and business administration subjects in high school in Alameda and Contra Costa counties and in Contra Costa Junior College at Martinez. He is an active member and former officer of the California Business Education Association, Bay Section. His headquarters will be in the Sacramento office of the Bureau.

JOSEPH SIBLEY STULL was appointed as Editorial Assistant in the Bureau of Textbooks and Publications, effective January 3, 1955. He holds A.B. and A.M. degrees from the University of Rochester, where he majored in English, and the Ph.D. degree in literary history and criticism from the State University of Iowa. Dr. Stull's experience has included four years as instructor and assistant professor of English at Butler University, Indianapolis; three years of military service, working primarily in the historical program of the Army Air Force Technical Training Command writing and editing histories of programs of technical training for Air Force personnel; and seven years in the English

department at Santa Barbara College of the University of California. Prior to acceptance of his present position with the Department of Education, Dr. Stull was serving the Oregon State Division of Higher Education in the State Extension Center at Portland.

ROY V. CASSIDY has been appointed Vocational Rehabilitation Officer and assigned to the Oakland district of the Bureau of Vocational Rehabilitation. Mr. Cassidy is a graduate of the University of California, Berkeley, where he majored in social welfare. He served three years as social worker in the Sacramento County Welfare Department.

Two new field workers have been appointed to the Field Rehabilitation Service for the Adult Blind. DONNA LEE KELSEY will serve in the San Francisco area. Miss Kelsey holds the degree of Bachelor of Music from Friends' University of Wichita, Kansas. She has had experience in work for the blind at the Oakland Orientation Center for the Blind and at the Field Service Center in San Jose. RUTH PFEIFFER has been assigned to the Modesto area. Miss Pfeiffer is a graduate of Mills College with A.B. in Occupational Therapy and M.A. in Psychology, and has done graduate study in education of the blind at Harvard Graduate School of Education and Perkins School for the Blind. Her experience includes four years as Hospital Corpsman in the U. S. Navy as occupational therapy technician and clinical psychologist. Since March, 1953, she has been serving as supervisor of the opportunity shop for the California Industries for the Blind in Oakland.

HELENE KNIPS has been appointed School Lunch Nutritionist in the School Lunch Program, with headquarters in San Jose. She is a graduate of Oregon State College at Corvallis, and has done graduate study in homemaking and social welfare at that institution, as well as at the University of Washington, University of California, and University of Southern California. Her experience has included elementary and high school teaching in Oregon and California; supervision of staff and meal-planning in day nursery and in high school; and service as investigator for the welfare departments of Los Angeles County and Kings County.

GEORGE P. REILLY has been promoted to the position of Senior Surplus Property Officer in the Oakland office of the State Educational Agency for Surplus Property.

INTERPRETATIONS OF LAW

APPLICABLE TO SCHOOLS

LAURENCE D. KEARNEY, *Administrative Adviser*

[The following items are merely digests, and although care is taken to state accurately the purport of the opinions reported, the items have the limitations common to all digests. The reader is therefore urged to examine the complete text of an opinion digested and, when necessary, secure competent legal advice before taking any action based thereon.]

OPINION OF THE CALIFORNIA DISTRICT COURTS OF APPEAL

Private Schools Permitted in Zone Permitting Public Schools

A city may not by a zoning ordinance permit public elementary schools to be conducted in a designated area and at the same time prohibit the conduct of private elementary schools in the same area. No reasonable ground exists for permitting public schools in an area and prohibiting in that area all other schools, whether conducted by an individual or a corporation, teaching the same subjects to the same age groups. Such an ordinance is unconstitutional. (*Roman Catholic Welfare Corporation of San Francisco v. City of Piedmont*, 130 ACA 382.)

OPINION OF THE CALIFORNIA ATTORNEY GENERAL

Sale of Group Accident Insurance to Pupils

A school district may not permit the launching on school premises of a campaign by a national insurance company to sell a limited group accident policy, defined by Insurance Code Section 10270.5, covering students of the district where the teachers collect the entire premiums from the pupils and pay them to the insurer, the school district paying nothing toward the proposed coverage. Education Code Section 16424 contemplates that premiums upon insurance described in that section shall be paid from district funds. "It has always been the sound public policy of this State to preclude the introduction of business enterprises into the public school system. . . . As to the matter before us, nothing in the statute warrants the conclusion that the Legislature intended to authorize the transaction of private insurance business with the pupils in attendance in the schools of the district." (AGO 54-180; 25 Ops. Cal. Atty. Gen. 77.)

FOR YOUR INFORMATION

WHITE HOUSE CONFERENCES ON EDUCATION, 1955

The 32-member Committee for the White House Conference on Education, appointed by President Eisenhower, held its organizational meeting on December 2, 1954 and selected the dates for the next White House Conference on Education, which will be held in Washington, November 28 to December 1, 1955.

The committee recognized that there are a host of problems which schools must face in the states and territories. It decided that the problems, in general, could be grouped as follows:

- (1) What should our schools accomplish?
- (2) How can we get the school facilities needed?
- (3) How can we get enough good teachers—and keep them?
- (4) How can we organize our schools most effectively and economically?
- (5) How can we pay for our schools?
- (6) How can we obtain a continuing public support of education?

The staff of the committee will furnish assistance to states and territories holding educational conferences.

Public Law 530, which set up the White House Conference on Education, appropriated \$900,000 to finance the program at the national and state levels. Of this sum, \$700,000 has been allocated to states and territories to help them organize and conduct their educational conferences.

Dates for California's White House Conference on Education have been designated as September 26, 27, and 28, 1955.

SCHOOLHOUSE CONSTRUCTION CIRCULARS

The Schoolhouse Section of the Division of Architecture, State Department of Public Works, has recently released reprints of Circulars Nos. 1, 2, and 3, size 6 by 9 inches, punched to fit standard binders for the California Administrative Code.

Circular No. 1, "Transit Mixed Concrete and Batched Mixes," and Circular No. 2, "Verified Progress Reports to Cover Special Inspection," remain the same as the previously released mimeographed edition, except for minor editorial changes. Circular No. 3, "Requirements for the Design and Construction of Bleachers," has been revised to limit the over-all height of bleachers and to clarify the requirements of lateral support for columns.

Copies of the circulars are available from offices of the State Department of Public Works at the following addresses: 1120 N Street, Sacramento 14; 150 Oak Street, San Francisco 19; or 120 South Spring Street, Los Angeles 12.

NATIONAL SCIENCE FAIR, 1955

The Sixth National Science Fair will be held at Case Institute of Technology and Western Reserve University, Cleveland, Ohio, May 12 to 14, 1955. Exhibitors in the national fair will be selected from contestants who have shown their experiments, collections, models or other displays in competition with others in school or community fairs sponsored by schools, clubs, civic, scientific or technical societies, industries, or newspapers. Two finalists are selected, usually one boy and one girl, from each local fair, and their exhibits are shown at the National Science Fair. The finalists participate in a three-day program of sightseeing and meetings with leading scientists. They become acquainted with other finalists having similar interests and compare their work, and are eligible to receive medals, awards of equipment, and cash prizes.

The National Science Fair, which began in 1950, is held in a different city each year. It has been held at the Franklin Institute, Philadelphia; Washington University, St. Louis; Smithsonian Institute, Washington, D.C.; American Museum of Atomic Energy, Oak Ridge, Tennessee; and Purdue University, Lafayette, Indiana.

This competition is sponsored by Science Clubs of America, 1719 N Street, Washington 6, D.C., and is approved by the National Contest Committee of the National Association of Secondary-School Principals.

WINNERS IN SCIENCE TALENT SEARCH

Three hundred boys and girls who are believed to have unusual potential scientific ability were selected from the 1955 senior classes of U. S. high schools for honors awarded in the Fourteenth Annual Science Talent Search conducted by Science Club of America.

Forty contestants were selected for an all-expense trip to attend the Science Talent Institute in Washington in February. The trip winners came from 32 cities in 17 states. Three of the forty were Californians:

David Fleishhacker (age 17), Webb School, Claremont
James Halbert Havey, Jr. (age 17), Grant Union High School, Del Paso Heights
Thomas Stafford Briggs (age 16), Lincoln High School, San Francisco

Of 240 awards of Honorable Mention, 18 were awarded to Californians:

Robert N. Bartlett (16), Carlmont High School, Belmont
Lanny Louis Lewyn (17), Beverly Hills High School
Lewis Martell Linson (16), El Cerrito High School
Neil Robert Lincoln (17), Gustine Union High School
Martin Allan Jackson (17), San Benito County High School
Edmond Charles Roelof (17), Hollywood High School
David Michael Milder (16), Los Angeles High School
David Morgan (17), John Marshall High School, Los Angeles
Stephen Jacob Young (16), Woodrow Wilson High School, Los Angeles
John Marlin Wright (18), Tamalpais High School, Mill Valley
Rodney Emerson Kreps (16), Palo Alto Senior High School

Robert Henry Hesse (17), Pleasant Hill High School
Frederic Allen Eiserling (16), Redondo Union High School, Redondo Beach
David James Eberhardt (16), Point Loma High School, San Diego
Robert Nobuo Ishikawa (17), San Jose High School
Charles Kenneth Elmore (16), Santa Rosa High School
Lawrence Whitney Elmore (17), Anny Union High School, Sebastopol
John Wesley Lango (17), Verdugo Hills High School, Tujunga

PROFESSIONAL LITERATURE

PUBLICATIONS RECEIVED

- ADAMS, BESS PORTER. *About Books and Children: A Historical Survey of Children's Literature*. New York 17: Henry Holt and Co., Inc. (383 Madison Ave.), 1953. Pp. xvi + 574.
- AUSUBEL, DAVID P. *Theory and Problems of Adolescent Development*. New York: Grune and Stratton, 1954. Pp. xviii + 580.
- BARBARA, DOMINICK A. *Stuttering: A Psychodynamic Approach to Its Understanding and Treatment*. New York 18: Julian Press (8 West 40th St.), 1954. Pp. xii + 304.
- BARRON, MILTON L. *The Juvenile in Delinquent Society*. New York: Alfred A. Knopf, 1954. Pp. xx + 350.
- BETTERWORTH, JOHN K. *People's College: A History of Mississippi State*. University, Ala.: University of Alabama Press, 1953. Pp. 472.
- CAPEN, SAMUEL P. *The Management of Universities*. Edited by Oscar A. Silverman for the Council of the University of Buffalo. Buffalo, N.Y.: Foster and Stewart Publishing Corp., 1953. Pp. xii + 288.
- Civil Education in the United States: A Directory of Organizations, 1954*. Compiled by Robert Horwitz and Carl Tjerandsen and the staff of the University of Chicago Committee on Education for American Citizenship. Chicago 37: University of Chicago Press, 1954. Pp. xx + 218.
- COMMISSION ON UNIVERSITY EDUCATION IN HOSPITAL ADMINISTRATION. *University Education for Administration in Hospitals*. Washington 6: American Council on Education, 1954. Pp. xx + 200.
- Compulsory Education in South Asia and the Pacific*. Report of the Bombay Conference, December, 1952. Studies in Compulsory Education, No. 13. Paris, France: United Nations Educational, Scientific and Cultural Organization, 1954. Pp. 158.
- CONFERENCE OF INTERNATIONAL COUNCIL FOR EXCEPTIONAL CHILDREN, 1952. *Training Facilities for the Preparation of Teachers of Blind Children in the United States*. Educational Series, No. 4. New York 11: American Foundation for the Blind (15 West 16th St.), 1953. Pp. 38.
- CRONBACH, LEE J. (ed.); BIERSTEDT, ROBERT; McMURRAY, FOSTER; SCHRAMM, WILBUR; and SPALDING, WILLARD B. *Text Materials in Modern Education: A Comprehensive Theory and Platform for Research*. Urbana, Ill.: University of Illinois Press, 1955. Pp. vi + 216. \$2.50.
- Directory for Exceptional Children: Schools, Services, and Other Facilities, 1954*. Edited by E. Nelson Hayes, Boston: Porter Sargent, Publisher, 1954. Pp. 96.
- EAGAR, W. MCG. *Making Men: The History of Boys' Clubs and Related Movements in Great Britain*. London, England: University of London Press, 1953. Pp. 438.
- Education and Art: A Symposium*. Edited by Edwin Ziegfeld. Paris, France: United Nations Educational, Scientific and Cultural Organization, 1953. Pp. 130.
- EARNST, ERNEST. *Academic Procession: An Informal History of the American College, 1636 to 1953*. New York: Bobbs-Merrill Co., Inc., 1953. Pp. 368.
- Education for American Freedom*. Washington 6: Association for Supervision and Curriculum Development, a Department of the National Education Association (1201 Sixteenth St., N.W.), 1954. Pp. vi + 58.
- ELSBREE, WILLARD S., and REUTTFR, E. EDMUND, JR. *Staff Personnel in the Public Schools*. New York 11: Prentice-Hall, Inc. (70 Fifth Ave.), 1954. Pp. x + 438.

- Emerging Practices in Mathematics Education.* Twenty-second Yearbook of the National Council of Teachers of Mathematics. Washington 6: National Council of Teachers of Mathematics, National Education Association (1201 Sixteenth St., N.W.), 1954. Pp. xiv + 434.
- FITZPATRICK, EDWARD A. *La Salle, Patron of All Teachers.* Milwaukee, 1: Bruce Publishing Co. (400 N. Broadway), 1951. Pp. xviii + 428.
- FOSHAY, ARTHUR W. *Children's Social Values: An Action Research Study.* New York 27: Bureau of Publications, Teachers College, Columbia University (2960 Broadway), 1954. Pp. xii + 324.
- FRETWELL, ELBERT K., JR. *Founding Public Junior Colleges: Local Initiative in Six Communities.* Teachers College Studies in Education. New York 27: Bureau of Publications, Teachers College, Columbia University, 1954. Pp. x + 148.
- GREENE, SHIRLEY E. *The Education of Migrant Children.* A Study of the Educational Opportunities and Experiences of the Children of Agricultural Migrants. Washington 6: National Council on Agricultural Life and Labor, with the co-operation of the Department of Rural Education, National Education Association, 1954. Pp. xii + 180.
- HALPERN, FLORENCE. *A Clinical Approach to Children's Rorschachs.* New York: Grune and Stratton, 1953. Pp. xiv + 270.
- HAMILTON, RAPHAEL N. *The Story of Marquette University: An Object Lesson in the Development of Catholic Higher Education.* Milwaukee, Wis.: Marquette University Press, 1953. Pp. xii + 434.
- HARMS, ERNEST. *Essentials of Abnormal Child Psychology.* New York 18: Julian Press (8 West 40th St.), 1953. Pp. xiv + 266.
- The Harvard Divinity School: Its Place in Harvard University and in American Culture.* George Huntston Williams, editor. Boston: The Beacon Press, 1954. Pp. xvi + 366.
- HAWKINS, ALMA M. *Modern Dance in Higher Education.* Teachers College Studies in Education. New York 27: Bureau of Publications, Teachers College, Columbia University, 1954. Pp. 124.
- HENDERSON, HOWARD. *A Businessman Looks at Education.* Public Affairs Pamphlet No. 211. New York 16: Public Affairs Committee (22 East 38th St.), 1954. Pp. 28.
- History, Geography and Social Studies: A Summary of School Programmes in Fifty-three Countries.* Paris, France: United Nations Educational, Scientific and Cultural Organization, 1953. Pp. 116.
- Humanism and Education in East and West: An International Round-table Discussion Organized by UNESCO.* Paris, France: United Nations Educational, Scientific and Cultural Organization, 1953. Pp. 224.
- HUNGATE, THAD L. *Finance in Educational Management of Colleges and Universities.* New York 27: Bureau of Publications, Teachers College, Columbia University, 1954. Pp. vi + 202.
- HUQ, MUHAMMAD SHAMSUL. *Compulsory Education in Pakistan.* Studies in Compulsory Education, No. 12. Paris, France: United Nations Educational, Scientific and Cultural Organization, 1954. Pp. 170.
- HUTCHINS, ROBERT M. *The Conflict in Education in a Democratic Society.* New York 16: Harper and Bros. (49 East 33rd St.), 1953. Pp. viii + 112.
- ISIDRO Y SANTOS, ANTONIO; CANAVE, JUAN C.; MANALANG, PRISCILA A.; and VALDES, MATILDE M. *Compulsory Education in the Philippines.* Studies on Compulsory Education, No. 9. Paris, France: United Nations Educational, Scientific and Cultural Organization, 1952. Pp. 84.
- JERSILD, ARTHUR T. *Child Psychology.* New York 11: Prentice-Hall, Inc. (70 Fifth Ave.), 1954 (fourth edition). Pp. xii + 676.
- JUDSON, HORACE. *The Techniques of Reading: An Integrated Program for Improved Comprehension and Speed.* New York 17: Harcourt, Brace and Co., Inc. (383 Madison Ave.), 1954. Pp. viii + 14.

- LAUGHLIN, FRANCES. *The Peer Status of Sixth and Seventh Grade Children*. Teachers College Studies in Education. New York 27: Bureau of Publications, Teachers College, Columbia University, 1954. Pp. x + 86.
- LONG, SISTER M. BRIDEEN. *An Evaluation of Catholic Elementary School Teachers' Preservice Education*. A Dissertation. Washington: Catholic University of America Press, 1952. Pp. xii + 100.
- MARTIN, BRUCE. *School Buildings, 1945-1951*. Foreword by S. A. W. Johnson-Marshall. London, Eng.: Crosby Lockwood and Son, Ltd., 1952. Pp. 128.
- MIKELL, ROBERT F. *Normal Growth and Development of Children with Visual Handicaps*. Preschool Series No. 3. New York 11: American Foundation for the Blind, Inc. (15 West 16th St.), 1953. Pp. 14.
- Modern Learning Theory: A Critical Analysis of Five Examples*. The Century Psychology Series, Richard M. Elliott, editor. New York 1: Appleton-Century-Crofts, Inc. (35 West 32nd St.), 1954. Pp. xvi + 380.
- MUELLER, KATE HEVNER. *Educating Women for a Changing World*. Minneapolis, Minn.: University of Minnesota Press, 1954. Pp. x + 302.
- MYKLEBUST, HELMER R. *Auditory Disorders in Children: A Manual for Differential Diagnosis*. New York: Grune and Stratton, 1954. Pp. xiv + 368.
- NATIONAL COMMISSION FOR THE DEFENSE OF DEMOCRACY THROUGH EDUCATION. *Houston, Texas: A Study of Factors Related to Educational Unrest in a Large School System*. Washington 6: National Commission for the Defense of Democracy Through Education, National Education Association (1201 Sixteenth St., N.W.), 1954. Pp. 62.
- NATIONAL CONFERENCE OF SOCIAL WORK. *The Preschool Blind Child Project of the University of Chicago Medical Clinics*. Papers Presented at the National Conference of Social Work, Chicago, 1952. Preschool Series, No. 2. New York 11: American Foundation for the Blind, Inc. (15 West 16th St.), 1952. Pp. 32.
- NATIONAL COUNCIL OF TEACHERS OF ENGLISH, COMMISSION ON THE ENGLISH CURRICULUM. *Language Arts for Today's Children*. Curriculum Series, Vol. 2. New York 1: Appleton-Century-Crofts, Inc. (35 West 32nd St.), 1954. Pp. xvi + 432.
- NEILSON, DONALD W., and NIXON, JOHN E. *Swimming Pools for Schools*. Educational Administration Monograph No. 3. Stanford, Calif.: Stanford University Press, 1954. Pp. viii + 44.
- The New South and Higher Education: What Are the Implications for Higher Education of the Changing Socio-economic Conditions of the South?* Tuskegee, Alabama: Department of Records and Research, Tuskegee Institute, 1954. Pp. x + 146.
- NEWARK (NEW JERSEY) SCHOOL LIBRARIANS' ASSOCIATION. *The Librarian and the Gifted Child*. Newark, N. J.: Department of Libraries and Audio-Visual Aids, Board of Education, 1953. Pp. 32.
- Report of the National Work Session on the Preschool Blind Child*. Group Reports, No. 1. New York 11: American Foundation for the Blind, Inc. (15 West 16th St.), 1951. Pp. 68.
- Reporting on the Growth of Children*. Bulletin No. 62. Washington: Association for Childhood Education International (1200 Fifteenth St., N.W.), 1953. Pp. 48.
- ROBERTSON, SEONAI M. *Creative Crafts in Education*. Boston: Robert Bentley, Inc., 1953. Pp. xiv + 286.
- ROBSON, WILLIAM A. *The University Teaching of Social Sciences: Political Science*. Teaching in the Social Sciences series. Paris, France: United Nations Educational, Scientific and Cultural Organization, 1954. Pp. 250.
- RUSK, ROBERT R. *The Doctrines of the Great Educators*. New York 11: The Macmillan Co. (60 Fifth Ave.), 1954 (revised and enlarged). Pp. vii + 312.
- RUSSELL, JOHN DALE. *The Finance of Higher Education*. Chicago 37: University of Chicago Press, 1954 (revised edition). Pp. xx + 416.

- SIEPMANN, CHARLES A. *Television and Education in the United States*. Press, Film and Radio in the World Today—A Series of Studies Published by UNESCO. Paris, France: United Nations Educational, Scientific and Cultural Organization, 1952. Pp. 132.
- SLAVSON, S. R. *Re-educating the Delinquent Through Group and Community Participation*. New York 16: Harper and Bros. (49 East 33rd St.), 1954. Pp. xvi + 252.
- Statistical Methodology in Educational Research*. Review of Educational Research, Vol. XXIV, No. 5, December, 1954. Washington 6: American Educational Research Association, a Department of the National Education Association of the United States (1201 Sixteenth St., N.W.), 1954. Pp. 353-536. \$1.50.
- TAIT, MARJORIE. *The Education of Women for Citizenship: Some Practical Suggestions*. Problems in Education, No. 8. Paris, France: United Nations Educational, Scientific and Cultural Organization, 1954. Pp. 106.
- TAYLOR, KATHARINE WHITESIDE. *Parent Co-operative Nursery Schools*. New York 27: Bureau of Publications, Teachers College, Columbia University, 1954. Pp. xiv + 258.
- The Teaching of Philosophy: An International Enquiry of UNESCO*. Paris, France: United Nations Educational, Scientific and Cultural Organization, 1953. Pp. 230.
- TRAUTMAN, RAY. *A History of the School of Library Service, Columbia University*. New York 27: Columbia University Press (2960 Broadway), 1954. Pp. viii + 86.
- TOWLE, CHARLOTTE. *The Learner in Education for the Professions as Seen in Education for Social Work*. Chicago 37: University of Chicago Press, 1954. Pp. xxvi + 432.
- University Extension in the United States*. A Study by the National University Extension Association, with the Assistance of a Grant from the Fund for Adult Education, John R. Morton, Director. University, Alabama: University of Alabama Press, 1953. Pp. x + 144.
- WALLACE, KARL R. *History of Speech Education in America*. Background Studies Prepared under the Auspices of the Speech Association of America. New York 1: Appleton-Century-Crofts, Inc. (35 West 32nd St.), 1954. Pp. x + 688.
- WOELLNER, ROBERT C., and WOOD, M. AURILLA. *Requirements for Certification of Teachers, Counselors, Librarians, Administrators for Elementary Schools, Secondary Schools, Junior Colleges*. Chicago 37: University of Chicago Press, 1954. Pp. vi + 126.
- ZIM, HERBERT S. *Science for Children and Teachers*. Washington: Association for Childhood Education International, 1953. Pp. 56.

DIRECTORY OF THE CALIFORNIA STATE DEPARTMENT OF EDUCATION

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William L. Blair, <i>President, Pasadena</i>	1956
Byron H. Atkinson, <i>Glendale</i>	1957
Dr. Mabel E. Kinney, <i>Los Angeles</i>	1958
William N. Bucknam, <i>Ceres</i>	1959
Thomas J. Mellon, <i>San Francisco</i>	1958
Max Osslo, <i>San Diego</i>	1957
James Mussatti, <i>Palo Alto</i>	1958
Wilber D. Simons, <i>Redding</i>	1956
Mrs. Margaret H. Strong, <i>Stanford</i>	1956
William G. Werner, <i>Alameda</i>	1959

Roy E. Simpson, *Secretary and Executive Officer*

STAFF

(Unless otherwise indicated, all staff members may be reached at the State Education Building, 721 Capitol Avenue, Sacramento 14)

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Margaret Rauch, *Administrative Assistant*

Laurence D. Kearney, *Administrative Adviser*

Donald W. Parks, *Field Representative*

Mrs. Jane Hood, *Assistant to the Superintendent, 807 State Building, Los Angeles 12*

George H. Hogan, *Deputy Superintendent; Chief, Division of Departmental Administration*

Herbert R. Stolz, M.D., *Deputy Superintendent; Chief, Division of Special Schools and Services, 515 Van Ness Avenue, San Francisco 2*

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J. Burton Vasche, *Associate Superintendent; Chief, Division of State Colleges and Teacher Education*

Frank M. Wright, *Associate Superintendent; Chief, Division of Public School Administration*

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ADULT EDUCATION, Bureau of, George C. Mann, *Chief*

AGRICULTURAL EDUCATION, Bureau of, Byron J. McMahon, *Chief*

AUDIO-VISUAL EDUCATION, Bureau of, Francis W. Noel, *Chief*

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CHILD CARE CENTERS, John R. Weber, *Supervisor*

CHILD WELFARE AND ATTENDANCE, E. R. Deering, *Consultant*

CONTINUATION EDUCATION, Leo Jones, *Consultant*

CREDENTIALS, Herschel S. Morgan, *Credentials Technician*

DEAF AND VISUALLY HANDICAPPED, EDUCATION OF THE, Charles W. Watson, *Consultant*

EDUCATION RESEARCH, Bureau of, Henry W. Magnuson, *Chief*

ELEMENTARY EDUCATION, Bureau of, Helen Heffernan, *Chief*

FIRE TRAINING, Thomas S. Ward, *Special Supervisor*

GUIDANCE, Bureau of, Wm. H. McCreary, *Acting Chief*

HARD OF HEARING, EDUCATION OF THE, Mrs. Vivian S. Lynndelle, *Consultant*

HEALTH EDUCATION, PHYSICAL EDUCATION, AND RECREATION, Bureau of, Carson Conrad, *Acting Chief*

HOMEMAKING EDUCATION, Bureau of, Mrs. Dorothy M. Schnell, *Chief*

INDIAN EDUCATION, E. R. Deering

INDUSTRIAL ARTS EDUCATION, Robert L. Woodward, *Consultant*

INDUSTRIAL EDUCATION, Bureau of, Samuel L. Fick, *Chief*

LIBRARIES, Division of, Mrs. Carma R. Zimmerman, *State Librarian, Library and Courts Building, Sacramento*

MENTAL HYGIENE, Eli M. Bower, *Consultant*

MENTALLY RETARDED, EDUCATION OF THE, Eli M. Bower and Flora M. Daly, *Consultants*

PARENT EDUCATION, Milton Babitz, *Consultant*

PEACE OFFICERS TRAINING, John P. Peper, *Special Supervisor*

PHYSICAL EDUCATION, Genevieve Dexter, *Consultant*

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SCHOOL ADMINISTRATION, Ronald W. Cox, *Assistant Division Chief, Public School Administration*

SCHOOL APPORTIONMENTS AND REPORTS, Bureau of, Ralph R. Boyden, *Chief*

SCHOOL DISTRICT ORGANIZATION, Bureau of, Drayton B. Nuttall, *Chief*

SCHOOL HEALTH EDUCATION, Patricia Hill, *Consultant*

SCHOOL LUNCH PROGRAM, James M. Hemphill, *Supervisor*

SCHOOL PLANNING, Chas. Bursch, *Assistant Division Chief, Division of Public School Administration*

SCHOOL RECREATION, Carson Conrad, *Consultant*

SECONDARY EDUCATION, Bureau of, Frank B. Lindsay, *Chief*

SPECIAL EDUCATION, Bureau of, F. W. Doyle, *Chief*

SPECIAL SCHOOLS AND SERVICES, Division of, Samuel W. Patterson, *Assistant Division Chief*

SPEECH CORRECTION, Mrs. Agnes M. Frye, Conrad Wedberg, *Consultants*

STATE COLLEGES, J. A. Burkman, *Assistant Division Chief, State Colleges and Teacher Education*

STATE TEXTBOOK DISTRIBUTION, W. S. Dyas, *Supervisor*

SUPPLEMENTAL EDUCATION SERVICES, Donald E. Kitch, *Chief*

SURPLUS PROPERTY, STATE EDUCATIONAL AGENCY FOR, William Farrell, *Chief Surplus Property Officer*

TEACHER EDUCATION, James C. Stone, *Specialist*

TEXTBOOKS AND PUBLICATIONS, Bureau of, Ivan R. Waterman, *Chief*

VOCATIONAL EDUCATION, Wesley P. Smith, *State Director*

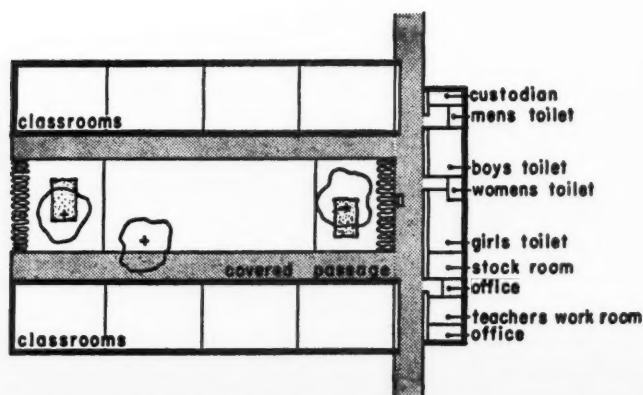
VOCATIONAL REHABILITATION, Bureau of, Andrew Marrin, *Chief*

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SITE UTILIZATION PLAN—ARROYO HIGH SCHOOL EL MONTE UNION HIGH SCHOOL DISTRICT

Swimming Pool	1	Social Studies	12
Boys' Shower		Mathematics	13
and Lockers	2	Language	14
Gymnasium	3	Business	15
Girls' Shower		Library and	
and Lockers	4	Audio-Visual	16
Music	5	Shops	17
Multi-use	6	Art	18
Cafeteria	7	Homemaking	19
Student Center	8	English	20
Service	9		
Administration	10		
Science	11		



TYPICAL GROUP OF CLASSROOMS
AROUND COURT